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[OP-001]

Does adnexal torsion-detorsion procedure affect fecundability in a rat model?

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Since normal follicular growth was demonstrated in oophorectomies from adnexal torsion patients, organ-sparing strategy has gained more popularity irrespective from the appearance of the ovary. However, fecundability in those cases has never been assessed. The aim of this study was to evaluate the effect of ischemia-reperfusion on fecundability in a rat (Wistar albino) model with adnexal torsion. In the current study, study groups were generated by twisting the right ovaries at 720 for duration of 8 (n=10) or 24 (n=10) hours in the first laparotomy. A second laparotomy was performed to untwist the right adnexa and to make oophorectomy to the left side. In the control group (n=10), right ovaries were kept without any intervention and left ovaries were removed. After 30 days, female rats were mated with male rats. Five out of the 19 rats (26.3%) got pregnant in study groups, whereas 7 out of 10 subjects (70%) conceived in controls (p=0.072). Two out of 9 conceived (22.2%) in the 8-hour group and 4 of 10 rats got pregnant in the 24-hour group (30%). Those results suggest although there was follicular growth after torsion in previous studies, that ovarian torsion might impair fecundability when treated with detorsion. To confirm those findings, further prospective studies should be conducted on human subjects among women who had experienced ovarian torsion.

Keywords: Ovarian torsion, pregnancy, hypoxia, gynecological emergency, animal study

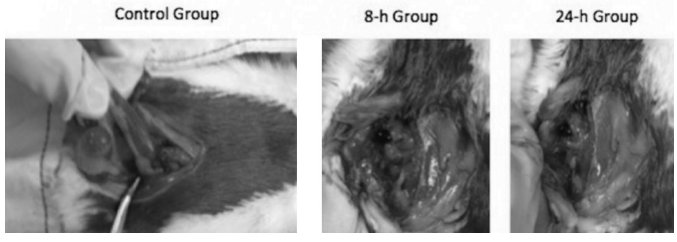


Figure 1. Macroscopic appeaance of control group and twisted ovaries (8 and 24-h) in the second laparotomy. Black-bluish and dark appearance was present in both experimental groups

[OP-002]

Comparison of adhesion effects of different hemostatic material in an experimental rat model

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Objective: Postoperative adhesions are unavoidable results of abdominopelvic surgery leading to an increase in mortality and morbidity and with increasing importance through the years for surgery clinics due to encountering complications such as infertility, chronic pelvic pain, and ileus. This study aimed to assess the effects of different hemostasis methods used in abdominal surgery on the development of abdominal adhesions.

Material and Methods: After the study received ethics committee permission (14.03.2017/02) from KSU School of Medicine Experimental Research Center, 48 Wistar female albino rats weighing 300±50 g were used. The study used hemostatic material of Ankafert-Blood Stopper® (wet pad blood stopper), GelSpon-P® (absorbable hemostatic gelatine sponge), PAHACEL® (absorbable hemostatic oxidized regenerated cellulose) and electrocautery. Rats were randomly divided into 6 groups containing 8 rats each as follows; Group 1: (Control) group, Group 2: Hemorrhage group, Group 3: (Electrocautery) group, Group 4: (GelSpon-P®) group, Group 5: (PAHACEL®) group, Group 6: (Ankafert-Blood Stopper®) group. In the first operation, all rats had intramuscular anesthesia administered. After identifying sufficient anesthesia, rats were shaved abdominally, with skin stained with povidone iodine and mid-line incision made on the abdomen. In Group 1, after abdominal incision, the abdomen was left open for 1 minute. In the other groups, beginning from the uterus bifurcation, a 1 cm segment of each horn was traumatized with a number 15 lancet until macroscopic petechial hemorrhage of the serosa was observed. Then rats in Group 2 had no coagulation process applied. In Group 3 a manual monopolar cautery was used with 10 Wat power for a maximum of 5 seconds to ensure sufficient coagulation. In Group 4 a 2x1 cm GelSpon-P® was placed on the incision and hemostasis was ensured. In Group 5 a 2x1 cm PAHACEL® was placed on the incision and hemostasis was ensured, while in Group 4 a 2x1 cm Ankafert-Blood Stopper® was placed on the incision. The abdomen wall was closed with 3-0 silk sutures and the operation was ended. On the 14th day after decapitation, the same incision had secondary view laparotomy performed and adhesion development was investigated. When scoring adhesion, the Knightly classification for adhesion severity and Linsky classification for adhesion distribution were used. The adhesion severity and distribution scores were added to calculate total adhesion score.

Results: Within all groups, the lowest adhesion values were observed in Group 1. In terms of all parameters, the highest adhesion values were in the hemorrhage group. The adhesion values for rats with hemostasis applied with electrocautery were similar to the results in the hemorrhage group. When alternative methods are assessed among themselves, the lowest adhesion value was observed to be in the Ankaferd Blood Stopper group (Table 1).

Conclusion: In our study, comparison of the groups with hemostasis methods of GelSpon-P®, Pahacel®, and Ankafert-Blood Stopper®, used as alternative to electrocautery, with groups without hemostasis and with electrocautery hemostasis found there were statistically lower

rates of adhesion. It was identified that for individuals requiring hemostasis, the alternative methods should be chosen for the aim of hemostasis instead of electrocautery.

Keywords: Abdominal adhesion, hemostatic agents, intra-abdominal hemorrhage

Table 1.

	Group 1(n: 8)	Group 2 (n:8)	Group 3 (n:8)	Group 4 (n:8)	Group 5 (n:8)	Group 6 (n:8)
Severity score	0.25±0.462	3.87±0.353 [b]	3.75±0.462 [b]	2.62±0.517 [b-d-f]	2.75±0.462 [b-d-f]	2.50±0.534 [b-d-f]
Adhesion distribution score	0.25±0.462	3.75±0.462 [b]	3.50±0.534 [b]	2.50±0.534 [b-d-f]	2.75±0.462 [b-d-e]	2.50±0.534 [b-d-f]
Zuhlke Histologic score	0.5±0.534	2.50±0.755 [b]	2.37±0.517 [b]	1.50±0.534 [b-c-e]	1.62±0.517 [b-c]	1.37±0.517 [a-d-e]
Fibrosis score	0.25±0.462	2.75±0.707 [b]	2.25±0.462 [b]	1.37±0.517 [b-d-e]	1.87±0.640 [b-c]	1.25±0.462 [b-d-f]
Inflammation score	0.37±0.517	2.87±0.640 [b]	2.75±0.886 [b]	1.62±0.744 [b-d-e]	1.62±0.517 [b-d-e]	1.37±0.517 [a-d-e]

[a] P<0.05 group difference with control group
[b] P<0.01 group difference with control group
[c] P<0.05 group difference with hemorrhage group
[d] P<0.01 group difference with hemorrhage group
[e] P<0.05 group difference with electrocautery group
[f] P<0.01 group difference with electrocautery group

[OP-003]

The effects of milk thistle extract (silymarin), on serum estrogen levels and histopathologic effects in atrophic vagen in ooferectomized rats

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Objective: The efficacy of silymarin in the treatment of atrophic vaginal findings was evaluated by generating atrophic vagina in ovariectomised rats.

Material and Methods: After forming atrophic vagina, silymarin (10 mg/kg/day) was administered in the silymarin group (n=8), and the findings were compared with the sham-control (n=7) and ovariectomised-control groups (n=7).

Results: Post-treatment E2 levels, uterus + vagen weight, vaginal mucosal muscular layer thickness and uterine wall thickness were highest in the sham-control group they were higher in the silymarin group compared with the ovx-control group (KW test, p<0.001). Maximum number of vaginal cell layer was the highest in the sham-control group, and in the silymarin group was smilar with ovx-control group (KW test, p<0.001). While the endometrial lining epithelium in all of the rats in the ovx-control and silymarin groups was inactive, the columnar/cuboidal epithelium was detected in all of the rats in the sham-control group (chi-square x2: 20.594 p=0.001). The endometrial lumen was observed to be narrow in the rats in the ovx-control and silymarin groups whereas the lumen structure was large in 71.4% and narrow in 28.6% of the rats in the sham-control group (chi-square Fisher's exact test x2: 11.191 p<0.002). Crowding in endometrial glands was detected in all of the rats in the sham group. But no crowding was detected in endometrial gland architecture in any case in the silymarin and ovx-control groups (chi-square x2: 20.594 p=0.001). While no cornification was observed in the ovx-control group, there was cornification in 3 rats out of 8 in the silymarin group. Cornification was detected in all rats in sham group (x2: 15.882 p<0.001). Both vaginal and endometrial Ki67 proliferetion indexes were the highest in the sham-control group. The vaginal Ki67 proliferation index was significantly higher in the silymarin group than the ovx-control group. There is no statistically significant difference between silymarin and ovx-control group for endometrial Ki67 proliferation index level (x2: 15.911 p<0.003). A moderate vaginal anti-estrogen receptor expression was detected in the whole group in the sham-control group. The vaginal estrogen receptor positivity was significantly higher in the silymarin group than the ovx-control group (x2: 8.125, p<0.06). There was no statisticaly significant difference between groups in terms of endometrial estrogen receptor positivity. (p>0.05). There was a significant correlation between post-treatment estradiol levels and uterus+vagen weight (p<0.001), maximum number of vaginal cell layers (p<0.003), vaginal mucosal muscular layer thickness (p<0.001), uterine wall thickness (endometrium+stroma) (p<0.001). No correlation was detected between post-treatment estradiol levels and endometrial and vaginal Ki67 proliferation index.

Conclusion: Silymarin can be used in the treatment of atrophic vagina due to its positive effects on vaginal epithelium rather than uterus, but it requires longer and possibly higher dose silymarin studies.

Keywords: Menopause, silymarin, vagina, Ki67, estrogen receptors

[OP-004]

Vulvar hematoma after laparoscopic endometrioma surgery: Report of a rare case

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Vulvar hematoma after laparoscopic surgery is a rare condition. Probably it is due to the ac-cumulation of the blood flowing from the injured epigastric vessels to the vulva. Here we describe a vulvar and pre-peritoneal hematoma developed after laparoscopic endometrioma excision and managed expectantly. An 18 years old nulligravida patient was admitted to the hospital with abdominal pain. She had been suffering from dysmenorrhea and pelvic pain for the last six months. Her past medical history revealed the diagnosis of Familial Mediterranean Fever 4 years ago and she had been on treatment with colchicine twice a day. The physical examination showed semi-distended abdomen without rebound or guarding. Transabdominal ultrasonography and magnetic resonance imaging showed an 8x8 cm left ovarian cyst with acoustic en-hancement with internal echoes supporting a diagnosis

of endometrioma (Figure 1). Serum carcinoembryonic antigen-125 level was 87 U/mL and preoperative haemoglobin and hematocrit levels were 10.8 g/dL and 33.7% respectively. The patient underwent an uncom-plicated laparoscopic excision of the left endometrioma. Standart 10 mm umbilical and two 5 mm lateral trocars were used for laparoscopy. The drain was placed from the left 5 mm trocar area and was fixed to the skin with 2.0 silk suture. At the postoperative 6th hour, she de-veloped tachycardia (103 beats per minute) and hypotension (90/60 mmHg). Control hae-moglobin level was 6.9 g/dL and hematocrit was 20.9% (38% drop in preoperative hematocrit level). On physical examination, there was hematoma on the left vulva and hemorrhage from left 5 mm trocar site (Figure 2). No intrabdominal hematoma was seen by transabdominal ultrasonography but it revealed a 4x7 cm pre-peritoneal abdominal wall hematoma (Figure 3). The drain was withdrawn and hemostasis was achieved by suturing the trocar area with Caprosin 1.0. After two units of packed red blood cells transfusion, haemoglobin level was achieved to be 10.3 g/dL and hematocrit to 31%. She was discharged at the postoperative 3th day with local Eau de Goulard administration. The hematoma was regressed at post-operative day 10 (Figure 4). Pathological diagnosis was reported as an endometrioma.

Keywords: Endometrioma, laparoscopy, vulvar hematoma



Figure 1. Magnetic resonance imaging (MRI) of left endometrioma

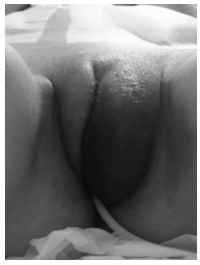


Figure 2. Vulvar hematoma on the left side



Figure 3. Pre-peritoneal abdominal wall hematoma in the sagittal view of transabdominal ultrasonography
B: Bladder, H: Hematoma, U: Uterus



Figure 4. Resolved hematoma on postoperative day 10

[OP-008]

Impact of pneumoperitoneum and patient positioning on the optic nerve sheath diameter during laparoscopy

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Objective: In recent years, laparoscopic surgery has become the method of choice for many procedures with benefits that include minimal invasion, better cosmetic results, reduced bleeding, less postoperative pain, and shorter hospital stay. Laparoscopy requires carbon dioxide (CO_2) insufflation, pneumoperitoneum, Trendelenburg positioning to secure a clear surgical view. However, these procedures have been associated with possible harmful hemodynamic changes, including increase in intracranial and intraocular pressures. Early identification of elevated intracranial pressure is critical to ensuring timely and appropriate management to improve patient outcome. Measurement of the optic nerve sheath diameter (ONSD) by ultrasound is an accurate, simple, well studied modality for noninvasive assessment of ICP. The aim of this study was to investigate the influence of pneumoperitoneum and Trendelenburg positioning on ONSD in patients undergoing laparoscopic tubal ligation performed under general anesthesia.

Material and Methods: We prospectively studied 30 patients, non-obese (body mass index <30 kg/m^2), aged 30-40 years, who underwent elective laparoscopic tubal ligation under general anesthesia. Patients with history of ophthalmic pathology, history of cerebrovascular disease, and affected by any type of neurological disease were excluded from the study. All patients received fentanyl 2 micro/kg 4, and then breathed 100% oxygen for 3 minutes prior to induction of anesthesia. Anesthesia was induced by using with thiopental 5 mg/kg and maintained with 1% sevoflurane in 50% oxygen and 50% N_2O mixture. Neuromuscular block was achieved with rocuronium 0.6 mg/kg. Controlled mechanical ventilation was applied to maintain endtidal CO_2 between 35-45 mmHg. Anesthesia was discontinued at the end of surgery and patients were extubated with reversal of muscle relaxation. Laparoscopic tubal ligation procedure included 5 mm infraumbilical skin incision, insertion of the Veress needle into the peritoneal cavity, insufflations of CO_2 until reaching an intra-abdominal pressure of 12-14 mmHg, insertion of a 10 mm trocar, application of the telescope and under direct vision creation of two additional 5 mm ports at 5 cm lateral and 5 cm below the first entry site. Mid-portion of the Fallopian tubes was coagulated and cut bilaterally. Ultrasonographic measurements of ONSD was conducted by a single

trained investigator. A linear ultrasound probe was placed carefully on the gel over the closed upper eyelid without exerting pressure on the eye. In the two dimensional mode, ONSD was measured 3 mm behind the globe using an electronic caliper (illustrated in Figure 1). The reported ONSD corresponds to the mean of the four values obtained for optic nerve (transverse and sagittal plane for both eyes).

Results: The mean values of ONSD at each time point are presented in Table 1. The mean values of ONSD at T2, T3, and T4 time points increased compared with that baseline (T0, $p<0.001$ for all). During 30-degree Trendelenburg positioning (T3), a significant increase of ONSD was observed compared with ONSD in the supine position without pneumoperitoneum after induction of general anesthesia (T1, $p<0.001$).

Conclusion: The combination of pneumoperitoneum and Trendelenburg positioning during laparoscopic surgery has a pronounced influence on ONSD.

Keywords: Laparoscopy, optic nerve sheath diameter, ultrasonography

Table 1. Time points of optic nerve sheath diameter measurements

Time point	Event	ONSD (mm, mean±SD)
T0	patient awake in supine position before induction of anaesthesia	44.53 ± 2.06
T1	5 minutes after induction of general anaesthesia in supine position	46 ± 1.45
T2	5 minutes after CO_2 pneumoperitoneum in supine position	46.95 ± 1.22
T3	5 minutes after 30-degree Trendelenburg position with CO_2 pneumoperitoneum	48.37 ± 3.18
T4	After returning to supine position with CO_2 pneumoperitoneum	46.89 ± 1.41
T5	Just before tracheal extubation	46.37 ± 1.25

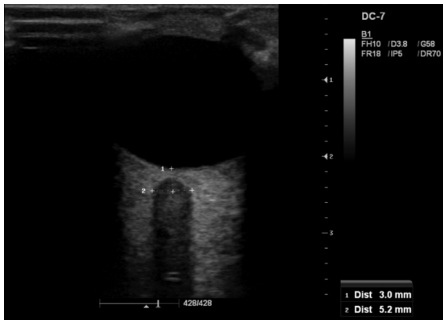


Figure 1. Measurement of the optic nerve sheath diameter

[OP-009]

Effects of advanced stage endometriosis on the surgical results and complications in total laparoscopic hysterectomy

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Objective: Total laparoscopic hysterectomy (TLH) is technically more difficult and complicated in patients with advanced tage endometriosis. The patient characteristics, operative indications, perioperative details and postoperative outcomes of patients whom undergo TLH for endometriosis and TLH cases accompanied with endometriosis in our hospital aimed to be compared to TLH patients with other causes and analyze their complications.

Material and Methods: Our study is constituted via retrospectively screening the files of 529 patients hospitalized for total laparoscopic hysterectomy for benign causes in between 2014-2017. Patients who underwent TLH for endometriosis and who diagnosed advanced stage endometriosis (classification according to Revised American Fertility Society) during the TLH operations (endometriosis group) were compared with women underwent TLH (control group) with other indications for their perioperative outcomes. Demographic characteristics such as age, gravida, parity, body mass index, past surgical operations, accompanying diseases, preoperative and postoperative hemoglobin levels of the patients were examined in the study and control groups. In addition, initial clinical indications of the patients for the operations, the duration of the operations, size of the uteruses, the length of stay in the hospital, and the complications showed up during and/or after the operations were also evaluated to compare the endometriosis (study) and control group.

Results: Five hundred and twenty-nine total laparoscopic hysterectomy cases were included in the study. The endometriosis group consisted of 32 patients (6%) and the control group consisted of 497 patients (94%). The mean age of the patients in the endometriosis group was 49.6±6.7 years, gravida 4.6±2.6, parity 3.3±1.7, body mass index 27.9±4.8, delta hemoglobin averages 1.73±0.07 g/dL and delta hematocrit averages 6.02±0.75 g/dL. The mean age of the patients in the control group was 48.9±7.2 years, gravida 4.4±2.4, parity 3.3±2.0, body mass index 29.9±5.3, delta hemoglobin averages 1.56±0.02 g/dL and delta hematocrit averages 4.73±0.14 g/dL. The conversion; transition to laparotomy was 9.37% versus 1.8% ($p<0.05$) and median operative duration was 190.63 minutes ($p<0.05$) versus 148.64 minutes for endometriosis vs controls in the group. Intraoperative complications were observed in 9, 3% in the control and 1, 48% ($p<0.05$) in the endometriosis group. Postoperative complications were 15.6% in the endometriosis group and 2.01% in the control group ($p<0.05$). The most frequent indication for clinical operations was uterine fibroids (n=290, 54.8%) in both groups.

Conclusion: The proportion of TLH in hysterectomy surgeries is increasing. In the total laparoscopic hysterectomy series, the operation time is shortened and the hospitalization period of the patients is also low in general. In the case of endometriosis, TLH is associated with longer operation time and increased risk and severity of complications compared with controls. In addition, longer hospital stay is monitored. However, the preference of expert laparoscopic surgeons for patients with diagnosed endometriosis will reduce laparotomy conversion, intraoperative complications and postoperative complication rates.

Keywords: Laparoscopy, endometriosis, total laparoscopic hysterectomy, complication

[OP-010]

Comparison of a new veress needle entry method and classic veress needle entry method in gynecolgic laparoscopy: A prospective randomized study

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Objective: It was aimed to compare cranial 15 ºC angulation of Veres needle to classic Veress needle entry in closed laparoscopic entry in obese patients.

Material and Methods: Patients with BMI index >30 were divided into two groups. Initial entry into the abdomen in Group 1 (n=29) was performed with the intraumbilical insertion of Veress needle in 90 ºC angle relative to the horizontal plane. In Group 2 (n=31) the Veress needle was placed intraumbilically in a cranial direction, the tip of the needle towards the thoracic cavity, with an angle of 15 ºC to the horizontal plane. Two groups were compared with respect of the operative outcomes.

Results: Both groups were similar at baseline regarding demographic characteristics (Table 1). In Group 2, the mean number of Veress needle entries attempt was significantly lower than Group 1 (p=0.01). Time to insertion of the Veress needle was significantly shorter in Group 2 than in Group 1 (p<0.001). While entry failure occurred in 3 patients in Group 1 (10.3%), no failures were monitored in Group 2 (p=0.01). Complication rate was significantly lower in Group 2 than in Group 1 (p=0.03) (Table 2). Approximately 50% of complications in laparoscopic surgeries occur during the initial entry. The abdominal entry angle for Veress needle is recommended to be 45 ºC towards the pelvic cavity in non-obese patients and 90 ºC in obese patients. Even if the 90 ºC angle to horizontal plane is used, there has been still difficulties in achieving pneumoperitoneum safely and with minimal attempts in obese patients because of the thicker abdominal wall and of more caudal localization of umbilicus (1,2). Therefore, laparoscopic surgery complications are more frequent in obese patients (1). To the best of our knowledge, there is no study in literature which has described the technique of angling the Veress needle in the cranial direction. In the current study, as a part of standart laparoscopy procedure in our clinic, the abdominal wall was lifted in all patients during the insertion of Veress needle. However, there has been a debate over lifting of abdominal wall in obese patients (1). There have been a greater number of failed entries in the elevated abdominal wall group, especially in obese patients since elevation of abdominal wall results in an increased distance between skin/subcutaneous tissue and fascia/parietal peritoneum (1). In contrary, Kosuta et al. (3) supported the lifting claiming that this would take the intraabdominal content away from the Veress needle. One of the limitation of the current study is the lack of the comparison with the nonlifting technique.

Conclusion: Intraumbilical insertion of the Veress needle in a cranial direction towards the thoracic cavity at 15 ºC to the horizontal plane to create pneumoperitoneum on obese patients can be considered to help reduce the number of unsuccessful entries thereby the complication rates in closed laparoscopic entry.

Keywords: Laparoscopic entry, obese patient, pneumoperitoneum, veress needle

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Table 1. Demographic characteristics of study groups

	Group 1 (n= 29)	Group 2 (n= 31)	p
Age [a]	45.6±8.3	46.5±7.1	0.368
Gravida [a]	4.5±1.7	4.4±1.1	0.766
Parity [a]	3.3±1.5	3.2±1.3	0.794
BMI (kg/m^2) [a]	34.1±3.3	33.5±2.7	0.546
Patients with previous abdominal surgeries [b]	6 (20.6%)	6 (19.3%)	0.902

BMI: Body mass index, [a]Mean ± Standart Deviation, [b]Number (%), Group 1: Verres needle angled at 90º to the horizontal plane, Group 2: Verres needle tip angled at 15º towards the cranial direction.

Table 2. Operative outcomes in study groups

	Group 1 (n= 29)	Group 2 (n= 31)	p*
Number of Veress needle entry attempts [a]	1.9±0.7	1.4±0.4	0.01*
Time to Veress needle entry (in seconds) [a]	188±67	105±45	<0.001*
Unsuccesful entries [b]	3 (10.3%)	0	0.01*
Complication [b]			
-Bleeding in trocar area	2 (6.8%)	1 (3.2%)	
-Infection at trocar area	0	0	
-Extra-peritoneal insufflation	3 (10.3%)	1 (3.2%)	
-Omental injury	0	0	
-Bowel injury	0	0	
-Minor vascular injuries	2(6.8%)	1(3.2%)	
-Major vascular injuries	0	0	
-Conversion to open entry	3 (10.3%)	0	
Total	8 (27.5%)	2(6.4%)	0.03*

[a]Mean ± Standart Deviation, bNumber (%), *Statistically significant, Group 1: Veress needle angled at 90º to the horizontal plane, Group 2: Veress needle tip angled at 15º towards the cranial direction.

[OP-011]

The effect of three different hysterectomy types on vaginal length and female sexual functions

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Objective: To compare female sexual function scores and the change in vaginal length after three different hysterectomy types which are laparoscopic hysterectomy (LH), total laparoscopic hysterectomy (TLH) and total abdominal hysterectomy (TAH). Also, to evaluate whether there is a correlation between the alterations in vaginal length

and female sexual function scores.

Material and Methods: A cross sectional study was conducted at a tertiary research hospital among 35-55 years old women, who underwent hysterectomy for benign uterine pathologies between November, 2016 and March, 2017. Patients with planned TAH (n=50) and laparoscopic hysterectomy (n=49) were preoperatively assessed. Patients who underwent laparoscopic hysterectomy were further classified as LH (n=24) and TLH (n=25). Vaginal length was measured preoperatively and at 3 months postoperatively. Differences between the groups in terms of female sexual dysfunction were evaluated by Golombok–Rust Inventory of Sexual Satisfaction (GRISS). Scores 5 are indicative of female sexual dysfunction. The correlation between alterations in vaginal length and GRISS scores were also investigated. SPSS was used for statistical analysis and a p value <0.05 was considered as statistically significant.

Results: Preoperative vaginal lengths were found to be similar in TAH, LH and TLH groups [9.70 (8.00:10.90), 9.80 (7.90:10.30) and 9.80 (8.80:10.40); p=0.287]. When the alteration in vaginal length was compared in TAH, LH and TLH groups there was statistically significant difference between all the groups and the most decrement in vaginal length was observed in LH group [1.40 (0.60:3.50), 2.10 (0.60:2.90), 1.50 (0.60:2.60); p=0.008]. Preoperative GRISS scores were found to be similar in TAH, LH and TLH groups [6 (1:9), 4 (2:9), 5 (1:8); p=0.205]. The alteration in GRISS scores at 3 months postoperative period were evaluated in the three groups and the most prominent increase in GRISS scores was observed in LH group, which was followed by TLH and TAH groups [3 (0:5), 2 (0:4), 1 (0:3); p=0.001]. The data about the alterations in vaginal lengths and the GRISS scores, obtained from postoperative evaluation of the patients at 3rd month, were analyzed to show whether there is a correlation between the shortening of vaginal length and increased GRISS scores, which is representative of deterioration in female sexual functions. Statistically significant correlation was observed between alterations in vaginal length and alterations in GRISS scores in TAH, LH and TLH groups (r=0.669, p<0.001; r=0.809, p<0.001 and r=0.883, p<0.001, respectively).

Conclusion: Patients should be informed about the type of hysterectomy chosen may cause deterioration in sexual functions to various extent. Considering the correlation of vaginal length with GRISS scores it should be better to avoid shortening of vagina as much as possible. When laparoscopic hysterectomy is planned preferring TLH instead of LH may be plausible to preserve a better vaginal length, which may be an important factor for female sexual functions.

Keywords: Female sexual functions, laparoscopic hysterectomy, vaginal length

[OP-014]

An extraordinary case of foreign body detection during hysteroscopy: Piece of a broken hysteroscope

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Objective: Incidental detection and Removal of a broken piece of hysteroscope, from a previous hysteroscopy procedure, during a scheduled operative hysteroscopy in a patient with endometrial polyp.

Material and Methods: Our 34-year-old patient with primary infertility, had a history of hysteroscopic septum resection, that was performed 3 times in an external center due to her uterine septum, 3 years ago. Excision of the polypoid lesions was planned using operative hysteroscopy when a hyperechogenic image of approximately 15 mm in diameter was revealed on ultrasound as it was considered to be an endometrial polyp.

Results: Diffuse endometrial adhesions and severe endometritis was observed during operative hysteroscopy. As we dissected adhesions and reached uterine fundus, we found out the structure that was seen as endometrial polyp was to be a-1.5 mm-long tough and grey colored plastic pipe. It was tightly adhesed to uterus, invading through myometrium. It was dissected and taken out hysteroscopically. The object was tought to be a retained surgical item: a broken piece of the inner hard plastic shield of operative hysteroscopy device. A ruptured side of 1 cm was detected in the fundus during the procedure. The bleeding area was repaired laparoscopically. No further complication was observed in patient. The accidentally broken piece of hysteroscope was developed a foreign body reaction in endometrium, the same mechanism is observed in intrauterine devices, causing the patient's infertility. Following its removal, the patient was concieved spontaneously in five months.

Conclusion: The surgical count is a fundamental practice in the operating room. It is very important to control the whole uterine cavity and to check out the integrity of the hysteroscope device if any part is missing, as it is driven out at the conclusion of the procedure; as important as, the count after open surgery and equipment control after laparoscopy.

Keywords: Hysteroscopic removal, foreign body, retained surgical item

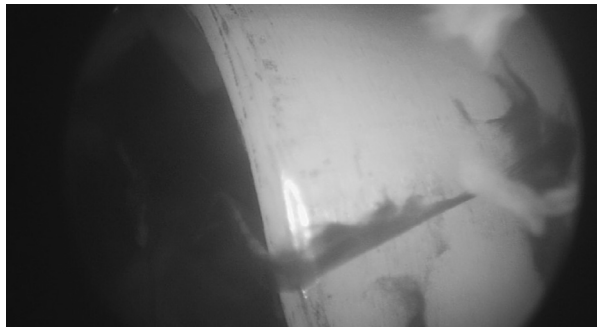


Figure 1. Broken piece of hysteroscope acting as foreign body in uterine cavity



Figure 2. Foreign body taken out of uterus

[OP-015]

Obesity and osteoporosis in postmenopausal women

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Objective: To investigate differences in bone mineral density (BMD) between obese and non-obese women in postmenopausal peiod.

Material and Methods: One hundred sixty one women who had body mass index (BMI) lower than 30 kg per meter squared were recruited as non-obese women. Also 139 women who had BMI higher or equal to 30 kg per meter squared were recruited as obese women. Two groups were matched for ages, sun exposure and postmenopause duration of the samples.

Results: Non-obese patients had lower BMD in the hip region, also in the lumbar region. Osteoporosis was more frequent in non-obese women. Spinal osteoporosis was more frequent in non-obese women. Total hip and femoral neck osteoporosis was comparable between the groups.

Conclusion: Spinal osteoporosis in lumbar region was found more frequent in our postmenopausal population. Total hip osteoporosis did not differ between the groups possibly because samples with total hip osteoporosis were scarce. A new study with more samples could present more prominent results.

Keywords: Body mass index, bone mineral density, obesity, osteoporosis

Table 1. Comparison of the obese and non-obese women for individual features

Characteristics	BMI <30 (n=161)	BMI ≥30 (n=139)	p value
Age (years)	55.95±5.10	55.87±5.40	0.974
Postmenopause duration (years)	9.61±6.01	9.14±5.77	0.477
T score - Femur neck	-1.11±1	-0.47±1.34	<0.001
T score - Femur troch	-0.67±0.87	-0.08±1.07	<0.001
T score - Total hip	-0.49±0.96	0.29±1.13	<0.001
T score - Total lumbar spine	-1.65±1.37	-1.20±1.19	0.002
Spinal osteoporosis (number, percentage)	43 (26.7)	20 (14.4)	0.009
Total hip osteoporosis (number, percentage)	1 (0.6)	2 (1.4)	0.478
Femoral neck osteoporosis (number, percentage)	11 (6.8)	5 (3.6)	0.214

[OP-016]

Is there a relationship between 25-hydroxyvitamin D and anti müllerian hormone levels?

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Objective: Serum levels of 30 ng/mL is essential for maximum benefit of 25-hydroxyvitamin D in physical health. Low serum levels of 25-hydroxyvitamin D, has been reported in women who were referred to infertility treatment. On the other hand, a higher level of 25-hydroxyvitamin D in blood and also in follicular fluid has been shown to be accompanied with higher pregnancy rate after in vitro fertilization (IVF)-embryo transfer. Measurement of anti müllerian hormone (AMH) serum levels has been reported as an appropriate method for prediction of pregnancy outcomes before beginning of IVF cycles, however, it is a weak test for prediction of pregnancy in IVF cycles. Even though AMH is considered to be one of the best diagnostic markers for ovarian reserve, studies have shown that environmental factors such as vitamin D deficiency may alter AMH expression and serum levels. Recent studies have shown that vitamin D may affect the expression and activities of some enzymes that control sex hormone production from cholesterol. The aim of the study was to evaluate whether there is a relationship between 25-hydroxyvitamin D and AMH levels.

Material and Methods: This cross-sectional study was performed retrospectively from file records of 411 patients who attended at Zekai Tahir Burak Women's Health Practice and Research Center Reproductive Endocrinology Clinic between 2014-2018. The patients who had both calculations were included in the study. During this period 288 patients from the infertility clinic and 123 patients from the IVF clinic had both values evaluated.

Results: The study group consisted of 411 patients with both AMH and vitamin D values. The median AMH value was 3.59 (0.001-27.2) and the median 25-hydroxyvitamin vitamin D value was 10.4 (3.4-115.2). The results are shown in Table 1. There was no correlation between AMH and 25-hydroxyvitamin D values (p=0.338). However, when we classified patients according to their age groups, only in one group which was between ages 35-39 (71 patients), there was a statistically significant association between AMH and 25-hydroxyvitamin D values (p=0.033). In addition, there was a weak negative correlation between 25-hydroxyvitamin D values and age (p=0.002 spearman's rho correlation coefficient= 0.155).

Conclusion: Vitamin D deficiency is seen in high rates in our country due to nutritional habits, traditional or closed clothing and not getting enough sun exposure. Previous studies suggested that vitamin D deficiency is related with diminished ovarian reserve in mature females (>40 years). Although the role of 25-hydroxyvitamin D for AMH gene description has been confirmed in experimental studies and the relationship between serum levels of 25-hydroxyvitamin D and ovarian reserve in perimenopausal women have been reported in other studies, in our study there was no correlation between AMH

and 25-hydroxyvitamin D levels in this infertile population. Larger randomized controlled prospective studies are needed to better understand the effects of vitamin D and its supplementation on female reproductive functions.

Keywords: 25-hydroxyvitamin D, anti müllerian hormone, IVF, ART, infertility

Table 1. Comparison of the AMH groups in terms of the classified serum 25-hydroxyvitamin D3 levels

Serum 25 (OH) D3 level	AMH <1 n (%)	AMH >1 - <3.5 n (%)	AMH >3.5 n (%)	Total
Severe deficient (VD<5 ng/mL)	7 (28)	5 (20)	13 (52)	25
Moderate deficient (5≤VD<10 ng/mL)	33 (19.5)	48 (28.4)	88 (52.1)	169
Mild deficient (10≤VD<20 ng/mL)	30 (20.7)	33 (22.8)	82 (56.6)	145
Insufficient (20≤VD<30 ng/mL)	9 (18.8)	15 (31.2)	24 (50)	48
Sufficient (VD≥30 ng/mL)	9 (37.5)	6 (25)	9 (37.5)	24
Data are presented as n (%). Pearson chi-square p value= 0.51				

[OP-017]

Histological evaluation of the depth of myometrial invasion of adenomyosis and its relationship with clinicopathological variales

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Objective: Adenomyosis is defined as the invasion of endometrial gland and/or stroma within the underlying myometrium. It is ot associated with mortality. However, frequently causes pelvic pain and menorrhagia. Although adenomyosis is commonly considered benign conditions, it has been suggested to share some characteristics with malignant tumors, such as angiogenesis, abnormal tissue growth, and invasion. The aim of this study was to investigate myometrial invasion depth of adenomyosis and its relationship with clinicopathological variables.

Material and Methods: In this study, myometrial invasion of adenomyosis was evaluated in uterin speciments after hysterectomy. Tissue samples of uterine walls from 57 consecutive women with adenomyosis were compared according to the thickness of lesion free myometrium. All patients with adenomyosis were divided into the two groups: Group 1 (n=28), patients with <1 cm lesion free myometrium and Group 2 (n=29), patients with ≥1 cm lesion free myometrium. All adenomyosis samples were confirmed via histopathological examination. Finally, the relationship between myometrial invasion depth of adenomyosis and the clinicopathological findings related to adenomyosis were evaluated.

Results: In this study, uterine tissue specimens of women who had higher adenomyosis invasion into the myometrium (n=28) were compared with women who had lower adenomyosis into the myometrium (n=29). The morphological analysis of tissue samples using light microscopy showed that adenomysis were mainly composed of fibrous connective tissue, blood vessels, and endometriotic glands and stroma. We found that there was no association between myometrial invasion depth of adenomyosis and presence of most frequently detected symptoms such as pelvic pain (n=0.7883) and menorrhagia (n=0.1300).

Conclusion: Our present results indicated that there is no association between adenomyosis invasion into the myometrium and presence of pelvic pain and menorrhagia.

Keywords: Adenomyosis, myometrium, histology

[OP-018]

Association between endometriosis and migraine as an autonomic nervous system disorder

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Objective: Comorbidities are defined as the coexistence of two or more diseases within the same individual. The available data suggest that women with endometriosis may represent a high-risk group for a number of diseases such as cancer, autoimmune diseases, asthma or allergic manifestations, and cardiovascular diseases. Recent data suggest that there is an association between autonomic nervous system disorders and pain syndromes as endometriosis. In this study, we analyzed the prevalence of migraine as an autonomic nervous system disorder in patients with endometriosis.

Material and Methods: This is a cross-sectional and observational study. Medical records of all women who admitted to our unit between January 2013 and December 2017 are reviewed. Women who have laparoscopically proven endometriosis (n=185) formed the study group. We randomly selected 168 infertile patients as our control group. Verbal informed consent is obtained from the participants. Demographic data are obtained from medical files. First, the patients were asked whether they had 2 or more headaches during the past 3 months. If their answers were "yes", then, 2 pre-test questions of the ID Migraine™ test were asked; (1) Do your headaches limit your ability to work, study or enjoy life? (2) Do you want to talk to your healthcare professional about your headaches? If they answered "yes" to at least one of these pre-test questions, then, the three screening questions ID Migraine test were asked. The cut-off point for a test-diagnosis of migraine headache was at least 2 positive responses. The women with the test-diagnosed migraine were also asked whether their headaches were related to menstruation to find out the prevalence of menstrual migraine.

Results: We reached 116 of women with endometriosis, and 98 of women from the control group. The mean age was 31.86±4.49 (min: 21, max: 42) of endometriosis group and 28.95±5.11 (min: 20, max: 44) of the control group (p=0.408). Two women from endometriosis group, one woman from control group refused to participate to the study. Concerning medication use, the rate of hormonal treatment

and dominantly combined oral contraceptive use was 35% in endometriosis group and 3% in control group (p<0.001). One hundred nine women of the endometriosis group and 75 women from the control group had 2 or more headaches during the last three months. The two pre-screening questions of the test were answered positively by 86 patients of the endometriosis group (75.4%) and by 53 patients of the control group (54.6%) (p=0.001). Of these patients, 51 (44.7% of endometriosis group) and 26 (26.8% of control group) were diagnosed with migraine by the 3-item Migraine questionnaire (p=0.007). The prevalence of menstrual migraine was 45.1% in endometriosis group (23/51) and 30.8% in the control group (8/26) (p=0.275). **Conclusion:** This study showed that the prevalence of questionnaire-diagnosed migraine was significantly higher in patients with endometriosis compared to infertile controls. Although OC use was significantly higher in the endometriosis group, recent studies in literature conclude that there does not appear to be a strong relationship between OC use and headache for most women. The study has ethical approval.

Keywords: Endometriosis, migraine, ID migraine questionnaire, infertility

[OP-019]

Impact of visceral adiposity on sex hormons and semen quality

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Objective: The aim of the study is to assess the relationship between the separate anthropometric indexes and visceral adiposity on male fertility.

Material and Methods: In this cross-sectional study, visceral and subcuteneal fat thickness of 81 subfertile male participants was measured by ultrasonography. Participants' body mass index (BMI), waist circumference and waist/hip ratio were determined. Participants were divided into three groups according to BMI (≤25, 25-30, ≥30) and two groups according to median value of visceral fat thickness (VFT, <18.9 mm, >18.9 mm). Differences between groups were investigated by ANOVA test. The relationship between the anthropometric measurements and the sperm parameters was evaluated by the Perason's correlation test.

Results: When the participants were compared according to the BMI, no significant difference was found between the BMI and sperm parameters and only the total testosterone level was significantly lower in the BMI ≥30 group (p=0.02). On the other hand estrogen levels were significantly higher, normal sperm morphology and luteinizing hormone levels were significantly lower in the increased VFT group (p=0.01, 0.02, 0.03, respectively). In the Perason's Correlation test, there was only a significant correlation between sperm morphology and VFT (r=-0.21, p=0.04).

Conclusion: The visceral adiposity may an independent factor on sperm morphology.

Keywords: Obesity, semen parameters, visceral fat

Table 1. Characteristics of study population according to the different BMI and VFT groups

	BMI <25	BMI 25-30	BMI >30	p	VFT <18.9 mm	VFT >18.9 mm	p
Age	32.21	32.70	32.77	0.4	33.25	32.49	0.5
Smoking	6.96	7.48	5	0.6	6.48	7.32	0.6
Alcohol use*	43.23	40.05	39.12	0.5	40.05	41.93	0.5
Sperm concantration	42.65	48.54	75.21	0.3	47.71	53.78	0.6
Total sperm motility	57.46	54.25	52.46	0.7	57.45	52.76	0.2
Progresif sperm motility	36.96	32.73	30.77	0.5	36.18	31.63	0.2
Normal sperm morphology*	38.91	43.79	36.92	0.5	54.03	38.05	0.02
FSH	6.05	6.77	8.08	0.6	7.40	6.09	0.3
LH	5.06	5.27	5.51	0.9	6.13	4.39	0.03
Prolactin	9.60	9.91	8.53	0.7	10.14	9.04	0.3
Testesterone	399.09	312.17	304.13	0.002	350.48	332.54	0.4
Estrogen	27.61	31.85	20.23	0.1	23.54	33.17	0.01
Weist circumferance	86.64	96.70	106.08	<0.001	94.10	95.34	0.5
Weist/hip ratio	96.39	105.10	111.54	<0.001	101.98	103.12	0.1
Subcutenous fat thickness	8.69	11.35	14.83	<0.001	10.68	11.29	0.5
Visceral fat thickness	15.07	19.41	21.28	<0.001	-	-	-
Glucose	97.54	113.28	103.63	0.3	103.56	108.71	0.6
Trigliserid	146.14	192.37	162.23	0.1	165.02	177.25	0.6
HDL-C	43.11	42.92	39.92	0.8	40.90	44.02	0.3
LDL-C	116.79	127.13	109.15	0.2	124.82	116.56	0.3

*: mean rank, statistical significance is p<0.05

Table 2. Correlation of sperm parametres and antropometric measurements

	Sperm concentration	Total motility	Progresive motility	Normal morphology
BMI (C, P)	0.1, 0.2	-0.1, 0.2	-0.08, 0.4	0.01, 0.8
WHR (C, P)	0.1, 0.2	-0.09, 0.4	-0.06, 0.5	-0.05, 0.6
SFT (C, P)	-0.4, 0.7	-0.1, 0.1	-0.1, 0.1	-0.07, 0.4
VFT (C, P)	-0.07, 0.5	-0.1, 0.1	-0.19, 0.06	-0.2, 0.04

C: Correlation coefficient, significant P value, BMI: Body mass index, WHR: Weist hip ratio, SFT: Subcuteneous fat thickness, VFT: Visceral fat thickness

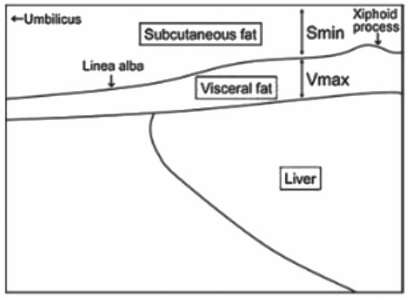


Figure 1. The technique of vft measurement by ultrasonography

[OP-020]

The effects of transfer day in intracytoplasmic sperm injection (ICSI) pregnancies on first trimester screening test results

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Objective: To compare first trimester screning serum markers free β-human chorionic gonodotropin (free β-hCG and pregnancy associated plasma protein A (PAPP-A) of blastocyst versus cleavage stage embryo transfers after assisted reproductive technologies (ART).
Material and Methods: Retrospective analysis of 123 women who conceived with ART undergone first-trimester screening between January 2017 and December 2017 at Bahçeşehir University Göztepe Medical Park Hospital IVF Unit. The age, gestational week, ultrasound markers and biochemistry markers (PAPP-A, free β-hCG) were collected. Results were considered significant when the p value was less than 0.05. Statistical Package for Social Sciences version 17.0 for Windows was used for statistical analysis.
Results: PAPP-A levels were significantly lower in day-3 (cleavage stage embryos) transfer intracytoplasmic sperm injection (ICSI) pregnancies compared to day-5 (blastocyst stage embryos) transfer ICSI pregnancies ($p<0.05$). Free β-hCG levels weren't significantly differ in two groups ($p=0.371$). NT was unaffected by the day of transfer ($p=0.21$). Also CRL wasn't affected by the day of transfer ($p=0.693$). No differences appeared between day-3 and day-5 embryo transfer with respect to maternal age, ($p=0.616$) weight ($p=0.693$) and gestational age ($p=0.742$) at sampling.
Conclusion: Today, the data on the effect of ART on the components of first trimester combined screening for chromosomal analysis are still controversial. Day-3 ICSI pregnancies had significantly lower PAPP-A levels supporting the need to appropriately adjust the combined first trimester screening risk algoritm. These results may be due to alterations in the placentation of ART pregnancies.
Keywords: Assisted reproduction techniques, blastocyst, cleavage, first trimester screening

Table 1. Maternal characteristic and age at sampling of the cases

Parameters	Cleavage stage n=40	Blastocyst n=83	P value
Maternal age Mean±std.deviation	32,6±4,09	32,18±4,44	0.616
Maternal weight at sampling (kg) Mean±std.deviation	64,90±10,82	65,19±12,82	0.693
Gestational age at sampling (week) Mean±std.deviation	12,2±0,67	12,32±0,64	0.742

Table 2. Ultrasound markers and biochemistry markers of the cases

Parameters	Cleavage stage n=40	Blastocyst n=83	P value
Free B-hCG levels (IU/L)median±std.deviation	41,19±28,91	48,33±34,51	0.371
PAPP-A levels(IU/L) median±std.deviation	3,06±2,02	3,92±2,94	0.031
NT median±std.deviation	1,55±0,35	1,47±0,37	0.21
CRL median±std.deviation	58,06±7,43	58,75±7,96	0.693

[OP-021]

Comparison of ART cycle characteristics and outcome with and without gonadotropin dose reduction in women with PCO

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Objective: To determine the impact of gonadotropin dose reduction, serum estradiol level and the day of stimulation at gonadotropin dose reduction on cycle outcome in women with PCO who underwent ICSI cycle.
Material and Methods: This is a retrospective study. Three hundred and fourty-seven infertile women who underwent ART were recruited. During stimulation in order to avoid OHSS, gonadotropin dose reduction was required in 124 (35.7%) cases. Some characteristics were analyzed to determine the predictive values for cycle prognosis; cycle outcome was compared between cases with and without dose reduction.
Results: AMH level was a significant predictor for OHSS (AUC=0.860, $p=0.001$). Optimal cut off value for the AMH was found to be 8.1 ng/mL to predict OHSS with 87.5% sensitivity, 73% specificity. There were significant differences between cases with and without dose reduction in terms of AMH, AFC, total gonadotropin dose, duration of induction, peak estradiol level and number of metaphase 2 oocytes ($p<0.05$). Clinical pregnancy rates were similar between groups with and without dose requirement (34.7% vs 39.5%, $p=0.190$).
Conclusion: ART in PCOS has high success rate, none of the baseline and cycle characteristics have significant impact on cycle outcome. The primary aim should be to avoid severe OHSS in this group of women.

Keywords: Anti-Müllerian hormone, antral follicle diameter, polycystic ovaries, antral follicle count

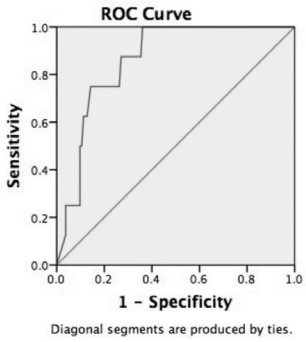


Figure 1. ROC curve of AMH to predict OHSS
ROC curve of AMH to predict OHSS

[OP-023]

Which one is the predictor for the success of intrauterine insemination? Initial or postwash total progressive motile sperm count?

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Objective: Intrauterine insemination (IUI) is the first preferred option as an option for assisted reproductive technique (ART, It is advantageous because it is simple, cost-effective, easily managed and associated with low risk of complications. Despite all these advantages, the results of IUI show that clinical pregnancy rate and live birth rate are 17.1% and 11.4%, respectively. There are several publications about the detection for the predictors of IUI success such as age, body mass index (BMI), etiology and duration of infertility, semen quality. We aimed to understand whether the initial spermiogram or postwash spermiogram is more effective for the prediction of IUI success.

Material and Methods: In this retrospective study, we analyzed the medical records of 908 cases who had been underwent ovarian stimulation using gonadotropins and IUI in our hospital. All clinical and demographic characteristics and the outcomes of IUI were recorded. Patients were divided into two groups and then compared according to whether they became pregnant or not.

Results: We studied a total of 908 IUI cycles for which the outcome was 133 pregnancies (14.6% in all population). The mean age in our study population was 28.8±4.4. All clinical and demographic characteristics were shown in Table 1. Table 2 compares the initial total progressive motile sperm count (TPMSC) and postwash TPMSC values between pregnant patients and non-pregnant patients. Table 3 shows the results of the binary logistic regression analysis. The postwash TPMSC values was more predictive for IUI success (Figure 1 and 2).

Conclusion: The responsibility of the clinician to infertile couples should be to present the optimum choice of assisted reproductive techniques and to inform the success of these techniques. There are several predictive factors for IUI success which are useful in the management of these infertile couples. Younger age, less BMI, shorter infertility duration, better quality of semen parameters are associated with more favorable results. There is no consensus about the effect of the initial and postwash TPMSC on IUI outcomes. The postwash TPMSC is defined as the total number of motile sperm that are present after preparation and subsequently available for insemination in IUI. Some reports argued that the initial TPMSC are more predictive, while others claimed that the postwash TPMSC could be potentially used in counseling patients for either IUI or *in vitro* fertilization. According to our results, the postwash TPMSC could be more helpful for physicians to counsel patients and give information about the more successful techniques in ART.

Keywords: Total progressive motile sperm count, intrauterine insemination, assisted reproductive techniques

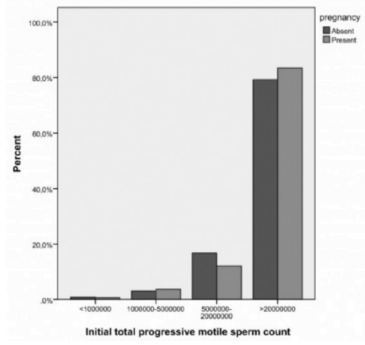


Figure 1. Presence of pregnancy regarding the initial total progressive motile sperm count

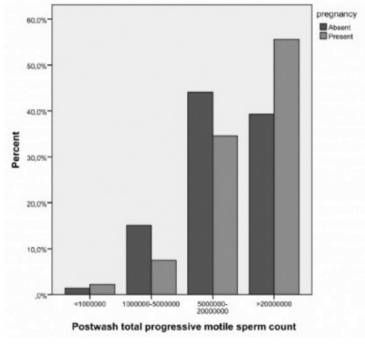


Figure 2. Presence of pregnancy regarding the postwash total progressive motile sperm count

Table 1. Clinical and demographic characteristics of the patients

Characteristics	Mean ± SD or number (%)
Maternal age (years)	28.8±4.4
Paternal age (years)	31.6±4.4
Body mass index (BMI) (kg/m^2)	23.7±4.6
Infertility duration (years)	4.2±3.1
FSH (IU/L)	6.9±2.1
Estradiol (pg/mL)	52.3±33.9
Progesterone following IUI (ng/mL)	21.4±14.7
Antral follicle count	6.4±4.7 (0-22)
Largest follicle count	1.1±0.4 (0-3)
The largest follicle size (mm)	17.4±1.7
Endometrial thickness (mm)	7.7±3.2
Pregnancy	
Absent	775 (85.4)
Present	133 (14.6)
Initial TPMSC	
<1x106	8 (0.9)
1-5x106	29 (3.2)
5-20x106	146 (16.1)
>20x106	725 (79.8)
Postwash TPMSC	
<1x106	14 (1.5)
1-5x106	127 (14)
5-20x106	388 (42.7)
>20x106	379 (41.7)

SD: Standard deviation, FSH: Follicle stimulating hormone, IUI: Intrauterine insemination, TPMSC: Total progressive motile sperm count

Table 2. Comparison of the patients according to presence of pregnancy

	Pregnancy		p
	Absent	Present	
Initial TPMSC			NS
<1x106	7 (0.9)	1 (0.8)	
1-5x106	24 (3.1)	5 (3.8)	
5-20x106	130 (16.8)	16 (12)	
>20x106	614 (79.2)	111 (83.5)	
Postwash TPMSC			0.002
<1x106	11 (1.4)	3 (2.3)	
1-5x106	117 (15.1)	10 (7.5)	
5-20x106	342 (44.1)	46 (34.6)	
>20x106	305 (39.4)	74 (55.6)	

Data are presented as n (%), Used independent samples t-test; p<0.05 accepted as statistically significant

Table 3. Results of logistic regression analysis

	RR (95% CI)	p
Initial TPMSC	0.80 (0.53-1.21)	NS
Postwash TPMSC	1.68 (1.22-2.30)	0.001

Used binary logistic regression analysis, p<0.05 accepted as statistically significant, RR: Risk ratio, CI: Confidence interval

[OP-024]

The impact of lipid accumulation product and visceral adiposity index on clinical, hormonal and metabolic parametes in lean women with Polycystic Ovary syndrome

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Objective: This study was performed to assess the impact of lipid accumulation product (LAP) and visceral adiposity index (VAI) on clinical, hormonal and metabolic parameters in lean women with polycystic ovary syndrome (PCOS).

Material and Methods: Retrospective analysis of one hundred twenty consecutive lean (body mass index <25 kg/m^2) PCOS subjects, was performed. Subjects were divided into two groups according to homeostasis model assessment-insulin resistance (HOMA-IR) index, as IR+ and IR-. A HOMA-IR value above 2.5 was used to indicate IR. Clinical, hormonal and metabolic parameters were compared between the two groups. Correlation between LAP and VAI and clinical, hormonal, metabolic features in women Polycystic Ovary syndrome were analyzed.

Results: One hundred twenty lean PCOS subjects were enrolled in the study, of which 39 were insulin resistant. Comparison of group means showed significantly higher values for triglyceride (TG) levels, free androgen index (FAI), Ferriman-Gallwey score (FGS), triglyceride/high density lipoprotein cholesterol (TG/HDL-c), triglyceride-glucose (TyG) index, LAP and VAI indexes and lower values for glucose/insulin ratio and Quantitative insulin sensitivity check index (QUICKI) in the IR+ group. LAP was found to be positively correlated with waist-to-hip ratio, waist circumference, body mass index, FAI, FGS, TG levels, total cholesterol TC levels, HOMA-IR, TC/HDL-c, TG/HDL-c, LDL/HDL-c, TyG index and VAI. There was a negative correlation of LAP and Glucose/Insulin ratio, QUICKI and HDL-c in subjects with PCOS. VAI was found to be positively correlated with waist circumference, FAI, FGS, TG levels, TC levels, HOMA-IR, TC/HDL-c, TG/HDL-c, LDL/HDL-c, TyG index and LAP. There was a negative correlation of VAI and Glucose/Insulin ratio, QUICKI and HDL-c in subjects with PCOS.

Conclusion: LAP and VAI may be promising in early identification of insulin resistance and cardiometabolic risk in lean women with PCOS.

Keywords: Polycystic ovary syndrome, lean, insulin resistance, lipid accumulation product, visceral adiposity index, cardiometabolic risk

Table 1. Clinical, hormonal and metabolic characteristics of groups

Variab le	IR- (n=81)	IR+ (n=39)	p
Age (y)	25.41±4.77	24.43±5.19	0.307
WHR	0.69±0.06	0.69±0.05	0.667
BMI (kg/m²)	22.17±1.83	22.58±1.52	0.221
Systolic blood pressure (mmHg)	116.64±15.85	114.15±12.92	0.396
Diastolic blood pressure (mmHg)	70.55±8.88	70.38±7.75	0.918
HDL-c (mg/dL)	56.14±14.11	51.89±13.91	0.123
LDL-c (mg/dL)	95.37±25.65	95.66±26.52	0.954
TG (mg/dL)	97.69±35.53	118.84±59.18	0.016[a]
TC (mg/dL)	179.71±33.49	180.71±39.09	0.885
FAI	2.20±2.13	3.45±4.26	0.034[a]
FGS	9.22±6.12	11.74±5.89	0.035[a]
Glucose/Insulin	10.29±3.93	6.30±5.15	<.001[b]
QUICKI	0.35±0.01	0.32±0.02	<.001[b]
TC/HDL-c	3.39±1.11	3.81±1.95	0.132
TG/HDL-c	1.94±1.08	2.65±2.15	0.017[a]
LDL/HDL-c	1.81±0.71	1.95±0.71	0.321
TyG index	8.22±0.39	8.39±0.49	0.048[a]
LAP	16.45±11.49	23.65±18.37	0.010[a]
VAI	1.47±0.86	2.10±1.85	0.013[a]

Values are expressed as mean ± SD, IR: Insulin resistance, WHR: Waist-to-hip ratio, BMI: Body mass index, HDL-c: High density lipoprotein cholesterol, LDL-c: Low density lipoprotein cholesterol, TG: Triglyceride, TC: Total cholesterol, FAI: Free androgen index, FGS: Ferriman-Gallwey score, QUICKI: Quantitative insulin sensitivity check index, TyG index: Triglyceride-glucose index, LAP: Lipid accumulation product, VAI: Visceral adiposity index, ap<0.05, bp<0.01

Table 2. Correlation between LAP and VAI and clinical, hormonal, metabolic features in women Polycystic Ovary syndrome

	LAP r	VAI r
Age	0.083	0.141
WHR	0.336**	0.094
Waist circumference	0.734**	0.277**
BMI	0.254**	0.004
Systolic blood pressure	0.006	0.073
Diastolic blood pressure	0.057	0.152
FAI	0.202*	0.318**
FGS	0.227**	0.244**
HDL-c	-0.331**	-0.646**
TG	0.721**	0.843**
LDL-c	0.144	0.090
TC	0.325**	0.368**
HOMA-IR	0.270**	0.199*
Glucose/Insulin	-0.308**	-0.269**
QUICKI	-0.333**	-0.249**
TC/HDL-c	0.496**	0.864**
TG/HDL-c	0.683**	0.990**
LDL/HDL-c	0.413**	0.612**
TyG index	0.631**	0.739**
LAP	-	0.752**
VAI	0.752**	-

**p<0.01, *p<0.05, HOMA-IR: Homeostasis model assessment- insulin resistance, WHR: Waist-to-hip ratio, BMI: Body mass index, HDL-c: High density lipoprotein cholesterol, LDL-c: Low density lipoprotein cholesterol, TG: Triglyceride, TC: Total cholesterol, FAI: Free androgen index, FGS: Ferriman-Gallwey score, QUICKI: Quantitative insulin sensitivity check index, TyG index: Triglyceride-glucose index, LAP: Lipid accumulation product, VAI: Visceral adiposity index

[OP-025]

Serum irisin levels in patients with Polycyctic Ovary syndrome

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Objective: Polycystic Ovary syndrome (PCOS) is the most common endocrine disease in reproductive age women. It has recently been shown that insulin resistance plays a role in the ethiopathogenesis of PCOS and it has also been shown lately that it is related with long term health risks such as obesity, type 2 diabetes mellitus, hypertension, dyslipidemia, and ischemic heart disease. Women with PCOS are four times more likely to develop metabolic syndrome than those of similar age groups without PCOS. Irisin is a newly identified myokine which plays a role in thermogenesis, glucose homeostasis and energy metabolism. Irisin has been shown to be associated with insulin resistance and metabolic syndrome. The purpose of this study was to determine and compare the serum levels of irisin in PCOS patients and the control groups and thereas to predict their long term health risks such as the increased metabolic syndrome risk.

Material and Methods: One hundred twenty patients with PCOS diagnosed according to Rotterdam 2003 criteria and 60 healthy controls were enrolled in the study. Pelvic ultrasounds were performed during a gynecological examination. Height, weight, blood pressure and waist-hip circumferences were measured. Fasting glukoz, fasting insulin, total cholesterol, LDL, HDL, trigliserid, total testosterone, SHBG, FSH, LH, estradiol and irisin levels were measured. Patients were evaluated for hirsutism according to the Ferriman Gallwey scoring system. FAI and HOMA-IR values were calculated. IDF + AHA / NHLBI consensus criteria were used for the diagnosis of metabolic syndrome.

Results: When the patients with PCOS and control group were compared in terms of clinical features, there was no statistically significant difference between the two groups in terms of age, gravida, parity and BMI. Significantly higher values were observed in patients with PCOS group in terms of waist-to-hip ratio, systolic and diastolic blood pressures and FGS ($p<0.05$). Whe the biochemical, hormonal and irisin values of the patients with polycystic ovary syndrome and the control groups were compared, there was no statistically significant difference between the two groups in terms of HDL, LDL, total cholesterol, triglyceride, FAI and HOMAIR scores. Irisin levels were statistically significantly higher in patients with PCOS group ($p<0.01$). There was no statistically significant difference in terms of age, gravida, parity, and BMI when the PCOS group was analyzed as those with and those without the metabolic syndrome. Significantly higher values of waist-to-hip ratio, systolic-diastolic blood pressure and FGS scores were observed in the PCOS group with the metabolic syndrome. There was no statistically significant difference between LDL values in PCOS patients with and without the metabolic syndrome. Significantly higher values of irisin, total cholesterol, triglyceride, FAI and HOMAIR values were observed in PCOS group with the metabolic syndrome ($p<0.01$).

Conclusion: The irisin levels in the PCOS group were statistically significantly higher than the control group. In the subgroup of PCOS with the metabolic syndrome, irisin levels were found to be statistically significantly higher than that of the PCOS without the metabolic syndrome group.

Keywords: Polycystic Ovary syndrome, irisin level, metabolic syndrome

[OP-026]

Controlled ovarian stimulation and intrauterine insemination is a quite successful step prior to IVF for couples with unexplaied infertility

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Objective: Intrauterine insemination (IUI) is widely used all over the world as a low-cost and less-invasive alternative to *in vitro* fertilization (IVF) for couples with unexplained infertility. Several previous studies have questioned the efficacy of IUI for unexplained infertility and contradictory results were reported. Current guidelines suggest expectant management for two years before going on with IVF. However, according to national regulations we have to perform at least two IUI cycles prior to IVF. The aim of the present retrospective cohort study was to investigate success of IUI in couples with unexplained infertility who waited at least two years before any treatment.

Material and Methods: All IUI cycles undertaken at the infertility clinic of a university hospital between January 2011 and June 2017 were reviewed. Couples with unexplained infertility who underwent at least two IUI cycles were recruited. The inclusion criteria were age 20-40 years, duration of infertility ≥2 years, documentation of ovulation, normal semen analysis, and tubal patency at hysterosalpingography. The exclusion criteria were male subfertility, anovulatory infertility, and documentation of endometriosis. The demographic data and cycle parameters were extracted from the patient files. The primary outcome measure was cumulative pregnancy rate (CPR).

Results: A total of 286 couples with unexplained infertility underwent 578 IUI cycles. The mean age and duration of infertility of the study population were 28.8±5.1 and 5.2±3.4 years, respectively. The clinical pregnancy rate per cycle was 16.6%. The CPR was 33.5% (96/286) for the entire cohort. Table 1 represents the demographic data of the study population and Table 2 shows the cycle parameters. The duration of infertility was significantly shorter in women whose IUI attempt were successful (p=0.036). Ovarian stimulation by clomiphene citrate, letrozole or gonadotrophins showed similar success rates. Of all, 124 women underwent IVF following two unsuccessful IUI cycles and 162 women completed up to three IUI cycles. Figure 1 shows the CPRs of women who completed up to three IUI cycles in case of failure to conceive (n=162). Among all pregnancies 70 conceived from first IUI cycles (n=162), 16 from second IUI cycles (n=92) and 10 from third IUI cycles (n=76) (p<0.001).

Conclusion: The results obtained from this study clearly demonstrate that IUI is an effective treatment modality in unexplained infertility even in couples who could not achieve pregnancy by expectant management for two years. However, most of the pregnancies were achieved from first cycles indicating unknown but easily treatable problems in some couples. At least two IUI cycles as a second step treatment modality can avoid a considerable amount of unnecessary IVF procedures.

Keywords: Intrauterine insemination, ovarian stimulation, unexplained infertility

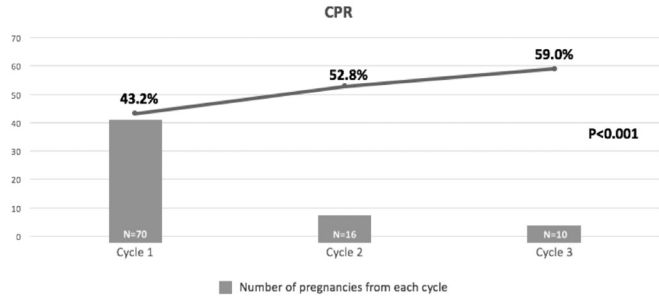


Figure 1. Cumulative pregnancy rates of women who completed up to three IUI cycles

Table 1. Demographics of the study population

	No pregnancy (n=190)	Clinical pregnancy + (n=96)	p value
Age, years	28.7±5.0	28.8±5.4	0.839
BMI, kg/m^2	25.1±4.0	24.9±6.8	0.910
Duration of infertility, years	5.3±3.5	4.4±3.0	0.036
FSH, IU/mL	6.3±2.3	6.5±2.4	0.393
LH, IU/mL	5.0±2.8	6.1±3.7	0.007
E2, pg/mL	50±27	52±38	0.556
Type of infertility, n (%) Primary Secondary	 162 (85.3) 28 (14.7)	 82 (85.4) 14 (14.6)	0.972

Table 2. Cycle characteristics

	No pregnancy (n=482)	Clinical pregnancy + (n=96)	p value
Ovarian stimulation, n (%) Clomiphene citrate Letrozole Gonadotrophin	 82 (78.1) 10 (76.9) 390 (84.8)	 23 (21.9) 3 (23.1) 70 (15.2)	0.458
Multiple follicle development, n (%)	159 (33.0)	37 (38.5)	0.294
Endometrial thickness at insemination, mm	9.3±2.3	9.6±2.9	0.238

[OP-027]

A Comparative analysis of the influence of hypogonadotropic hypogonadism on female sexual dysfunction in Turkish women

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Objective: The basic purpose of this study is to analyse whether hypogonadotropic hypogonadism has an impact on female sexual dysfunction.

Material and Methods: Eighty-eight outpatients, who visited IVF centre in Turkey between August 2013 and August 2016, are included in this study. Following an initial examination, the women, thought to be suitable for the study were, asked to fill in the Female Sexual Function Index and the Beck Depression Inventory. A scoring algorithm was developed to evaluate every area so that an aggregate score could be generated. Score ranges for items 3-14 and 17-19 are 0-5, and for items 1, 2, 15 and 16, 1-5. By accumulating the scores of each item that constitutes the domain and multiplying the total by the domain factor, separate domain scores were acquired. Factors were 0.6 for desire, 0.3 for arousal and lubrication, and 0.4 for orgasm, satisfaction and pain. Aggregate score was acquired by accumulating the six domain scores. The full-scale score range is from 2.0 to 36.0, with higher scores related to a lower degree of sexual dysfunction.

Results: In this study, 88 women patients approved of participating into the research. There were 42 patients in Group 1 and 46 patients in Group 2. Out of 42 patients in Group 1, 27 (64.28%) were diagnosed with sexual dysfunction. On the other hand, Out of 46 participants in Group 2 (control group), 14 (30.43%) were determined to have sexual dysfunction. In Table 1, basic characteristics of the patients are reported. It can be seen that the FSH levels of the participants are 0.35±0.28 and 5.45±1.93 respectively (Group 1 and 2). Thus, in terms of FSH levels, there is a statistically significant difference between HH patients and control group ($p<0.05$). Likewise, with regard to average LH levels, a statistically significant difference was observed between the participants in both groups ($p<0.01$). Moreover, with respect to average oestradiol levels, we found a statistically significant difference between HH patients and control group ($p<0.01$). On the other hand, in terms of average Desire scores, a statistically significant difference was observed between the groups ($p<0.05$). Likewise, regarding average Arousal scores, we determined a statistically significant difference between HH patients and control group ($p<0.05$). In a similar way, with respect to average Lubrication scores and Orgasm scores, a statistically significant difference was seen between the groups ($p<0.01$) and ($p<0.01$) respectively. In terms of pain and overall FSFI scores, we detected a statistically significant difference between HH patients and control group ($p<0.05$) and ($p<0.05$) respectively.

Conclusion: Hypogonadotropic hypogonadism patients should be both physically and physiologically supported. By doing so, women's state of mind could be strengthened, their self-esteem could be regained, and their life quality could be enhanced.

Keywords: Female sexual dysfunction, women, anovulation, hypogonadotropic hypogonadism

Table 1. Female Sexual Function Indexand Beck Depression Inventory scores

	Control (n=46)	Hypogonadotropic Hypogonadism (n=42)	p
FSFI domain score			
Desire	(1.20-6) (4.25±1.37)	(1.8-5.40) (3.65±1.40)	0.044**
Arousal	(2.1-6) (4.82±1.04)	(2-6) (4.16±1.32)	0.012**
Lubrication	(3-6) (5.20±0.67)	(2.7-6) (4.63±1.07)	0.004*
Orgasm	(3-6) (4.71±0.87)	(2-4.8) (3.93±0.78)	0.000*
Satisfaction	(3.2-6) (4.75±0.88)	(3-6) (4.41±0.89)	0.078
Pain	(3-6) (4.37±0.62)	(2-5) (3.98±0.75)	0.010**
Total FSFI score	(17.40-34.20) (28.1±4.33)	(15.70-32.40) (24.76±5.40)	0.002*
Beck Depression Inventory	(6-17) (12.28±3.58)	(7-21) (13.74±4.21)	0.083

The clinical findings of the two groups were compared. We also compared and contrasted the parametric data of the participants via independent samples t test (communicated as mean ± standard deviation) and nonparametric data by χ^2 and Mann-Whitney U tests (communicated as median, range), *p<0.05; **p<0.01

[OP-028]

Assessment of the relationship between serum vitamin D and osteocalcin levels with metabolic syndrome in non-osteoporotic postmenopausal women

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Objective: The aim of the study is to compare serum vitamin D and osteocalcin levels between non-osteoporotic postmenopausal women with and without metabolic syndrome and to analyze their association with each other and with other clinical/biochemical parameters.

Material and Methods: This cross-sectional study was conducted on 191 postmenopausal non-osteoporotic (T score >-2.5) women. Patients were divided into two groups according to the presence of metabolic syndrome. Blood samples were obtained and evaluated for 25-hydroxyvitamin D, osteocalcin, homeostatic model assessment of insulin resistance, glycosylated hemoglobin (HbA1c), calcium, phosphorus, deoxypyridinoline, thyroid stimulating hormone, lipid profile, fasting insulin, fasting glucose and HbA1c levels. Demographic and laboratory parameters were recorded for each woman.

Results: Vitamin D was found to be lower in women with metabolic syndrome compared to controls (16.1±11.2 vs 20.4±13.1 mg/dL; p=0.013). Similarly, osteocalcin was found to be significantly lower in metabolic syndrome group than in control group (4.2±2.1 vs 5.5±3.0; p<0.001). A significant positive correlation was observed between vitamin D and osteocalcin levels (r=0.198; p=0.008). There was an inverse correlation between vitamin D and some of the lipid parameters. On the other hand, osteocalcin levels was negatively correlated with C-reactive protein, homeostatic model assessment of insulin resistance, HbA1c in all groups (p=0.003, p=0.001 and p=0.048, respectively).
Conclusion: Vitamin D deficiency is common in postmenopausal women, even in non-osteoporotic conditions. Moreover, serum levels of vitamin D are significantly decreased in case of metabolic syndrome. Vitamin D may directly improve serum lipid profile and may indirectly decrease insulin resistance and subclinical systemic inflammation via osteocalcin metabolism.
Keywords: Menopause, metabolic syndrome, osteocalcin, vitamin D, osteoporosis, insulin resistance

Table 1. Logistic regression model of risk factors including bone turn over markers for metabolic syndrome

Variable	Odds ratio	%95 CI	p value
hs-CRP	1.121	1.012-1.242	0.028
25-OH-D	0.958	0.930-0.986	0.003
Osteocalcin	0.798	0.693-0.919	0.002

[OP-031]

The effect of psychological health on patients with Polycystic Ovary syndrome on IVF cycles: Preliminary results

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Objective: Polycystic Over syndrome (PCOS) has been shown to increase the incidence of depression and anxiety. There is insufficient data to evaluate the effect of these distress factors on IVF outcome in infertile PCOS patients. The aim of this study is to evaluate the effect of psychological health, depression and anxiety levels of patients with PCOS on IVF treatment. Preliminary results of the study is presented.
Material and Methods: The study was designed prospectively. A total of 85 women agreed to participate in the study were included in the IVF program at the educational research hospital between October 2017 and March 2018. Patients were divided into two groups as PCOS (according to Rotterdam criteria) and non-PCOS group. Psychopathological disease and chronic systemic disease were defined as exclusion criteria. The WHOQOL-BREF short-form quality of life questionnaire, the Beck Depression Inventory (BDI) and the Beck Anxiety Inventory (BAI) scale were used to determine the psychological health levels before IVF treatment. Demographic features, stimulation parameters, depression scores, anxiety scores and psychological health levels were recorded and clinical pregnancy outcomes were followed. The approval of the local ethics committee and written informed consent was obtained from the participants at the beginning of the study. SPSS was used in the analysis of the data. Independent-Samples t-test and Mann-Whitney U test were used to compare two independent groups. Pearson chi-square and Fisher-Freeman-Holt test were used to compare the categorical variables with each other.
Results: Among 85 infertile patients undergoing IVF treatment, 27 positive pregnancies are achieved. There was no significant difference between the PCOS and non-PCOS groups for the psychological health levels, moderate to severe depression and anxiety (p=0.737, p=0.353, p=0.825, respectively). As expected, BMI was statistically significantly higher in the PCOS group than in the non-PCOS group. In addition, there was no statistically significant relationship between the two groups in terms of age, educational status, duration of infertility, and number of cycles. In both groups, psychological health, moderate-severe depression and anxiety levels did not have statistically significant effect on clinical pregnancy.There was a significant relationship between positive pregnancy outcome and embryo quality, total gonadotropin dose, number of dominant follicle and MII oocyte number.
Conclusion: PCOS have an increased prevalence of moderate and severe depressive and anxiety symptoms compared with control women. However, the effect of psychological health on the outcome of IVF treatment is still controversial. In meta-analysis studies, depression and anxiety have been reported to have small but significant negative effect on IVF outcomes. Similarly, there are studies showing that stressful life conditions may deteriorate IVF outcomes. In our study, there was no significant difference in psychological health, depression and anxiety levels between the PCOS patients and non-PCOS group. In addition, psychological health levels did not have a significant effect on IVF outcomes.
Keywords: Depression, anxiety, PCOS, psychological health, IVF

Table 1. Variables studied between PCOS and non-PCOS groups

PCOS Median (Min/Max)		No (n=45) Median (Min/Max)	Yes (n=40)	p value
Age (years)		32 (23/44)	30 (23/40)	0.072
BMI (kg/m²)		24.21±4.20	26.07±3.46	0.028
Education	Primary school	15 (33.3)	16 (40.0)	-
	High school	18 (40.0)	13 (32.5)	0.797
	University	12 (26.7)	11 (27.5)	-
Number of cycles		1 (1/4)	1 (1/4)	0.483
Duration of infertility	≤3	20 (44.4)	17 (42.5)	1
	>3	25 (55.6)	23 (57.5)	-
Psychological health (%)		74.13±14.72	73.15±13.75	0.737
Depression score	Normal	33 (73.3)	25 (62.5)	0.353
	Moderate-severe	12 (26.7)	15 (37.5)	-
Anxiety score	Normal	28 (62.2)	26 (65.0)	0.825
	Moderate-severe	17 (37.8)	14 (35.0)	-

Independent Sample t-test (Bootstrap), Mann-Whitney U test (Monte Carlo), Pearson chi-square test (Exact-Monte Carlo), Fisher-Freeman-Halton test (Monte Carlo), SD: Standard deviation, Min: Minimum, Max: Maximum, BMI: Body mass index

[OP-032]

Menstrual cycle characteristics of young females with occult primary ovarian insufficiency at initial diagnosis and one-year fllow-up with serum amh level and antral follicle count

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Objective: Occult primary ovarian insufficiency (also known as incipient ovarian failure or diminished ovarian reserve) is defined as serum AMH level ≤1.1 ng/mL in women under age 30.

Material and Methods: Limited data is available regarding the prevalence of occult POI, the preceding menstrual characteristics and its natural course in otherwise healthy young females. We aimed in this prospective observational study to determine the prevalence of occult POI in young females (<age 30) screened with serum AMH measurement; and analyze the patterns of change in their menstruation at initial assessment and one-year follow-up in relation to the changes in ovarian reserve quantitatively assessed with AMH and AFC. Ninety hundred and sixty three young female college students under age 30 voluntarily participated in this study.

Results: Forty-three of them (4.4%) were diagnosed with occult POI as their AMH levels were ≤1.1 ng/mL. Thirty-eight (83.4%) of them have regular cycles and denied any menstrual irregularity in the last 12 months. This rate was not statistically different from 7.3% of those with AMH >1.1 ng/mL who reported at least one abnormal menstrual cycle in the last year (p=0.36). Cycle length was significantly shorter in females with AMH ≤1.1 ng/mL compared to those with AMH >1.1 ng/mL (25.1±3.2 vs 31.2±2.8 respectively, p<0.001). Karyotype, FMR-1 mutation analyses and auto-antibody screening returned normal in all. At one-year follow-up AMH, AFC and mean cycle length were further reduced compared to their values at initial assessment. Now, a greater proportion of the participants with occult POI were menstruating regularly at every 21 days compared to the initial evaluation one year ago (39.5% vs 13.9% respectively, p=0.013). Twenty-five underwent oocyte cryopreservation.

Conclusion: These findings underscore the importance of screening young females with AMH for possible occult POI. It also emphasizes that young females with critically diminished ovarian reserve may continue to menstruate regularly without any characteristic menstrual abnormality other than shortening of cycle length.

Keywords: Anti-müllerian hormone, primary ovarian insufficiency, young female

[OP-033]

Association of serum vitamin B12 level and insulin resistance in adolescent girls with Polycystic Ovarian syndrome

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Objective: To compare the vitamin B12, folate, ferritin, homocysteine and Homeostasis Model Assesment Insulin Resistance (HOM-IR) levels of patients with Polycystic Ovarian syndrome (PCOS) with those of the control group and determine whether there is a relationship between lower plasma vitamin B12 level and insulin resistance in non-obes adolescent PCOS.

Material and Methods: We retrospectively reviewed 80 PCOS-diagnosed non-obese adolescent patients and 80 non-obes adolescent control group who applied to the adolescent outpatient clinic of the Zekai Tahir Burak Women's Health Practice and Research Center Between January 2013 and September 2016. The two groups were macthed in term of age and body mass index (BMI), and vitamin B12, folate, ferritin, homocysteine, lipid profil, and glucose metabolism markers with HOMA-IR were compared between the PCOS and control group.

Results: Biochemical and endocrinolological parameters of non-obese adolescent PCOS patients and controls are summarized in Table 1. Compared with the control group, non-obese girls with PCOS had significantly higher HOMA-IR, free testosterone, homocysteine, LDL cholesterol, waist-to-hip ratio (for each parameter p<0.05). Serum vitamin B12 concentrations were lower while the homocysteine consentrations was higher in adolsecent girls with PCOS when compared to controls. Furthermore, no significant correlation was observed between vitamin B12, Homocysteine and HOMA-IR values.

Conclusion: Serum vitamin B12 levels are lower in adolescent PCOS. However, there was no significant relationship between vitamin B12 and insulin resistance and serum homocysteine levels. This may be due to the absence of clinical and laboratory findings of vitamin B12 deficiency in our young and nonobese patient group. Considering the long-term adverse metabolic and cardiovascular effects of vitamin B12 deficiency in these patients, closer follow-up and early vitamin B12 supplementation may be needed.

Keywords: Adolescent PCOS, insulin resistance, vitamin B12, homocysteine

Table 1. Comparison of clinical and laboratory characteristic of the groups

	PCOS (n:80)	Control (n:80)	P
Age (years)	18.2±2.4	18.8±2.3	0.138**
BMI (kg/m2)	24.7±4.7	21.5±3.3	**<0.001***
WC (cm)	82.1±12.4	74.0±8.9	**<0.001***
HC (cm)	100.8±11.0	95.4±7.7	**<0.001***
WHR	0.81±0.07	0.77±0.06	**<0.001***
Menarch age (years)	12.9±1.4	13.2±1.2	**0.038****
FGS	11.2±5.4	6.0±3.8	**<0.001****
Clinical hirsutism	59(73.8%)	25(31.3%%)	**<0.001¶**
FPG (mg/dL)	88.7±5.8	85.9±8.5	**0.024***
FPI	12.5±8.5	7.2±3.0	**<0.001****
HOMA-IR	2.8±1.9	1.5±0.6	**<0.001****
IR (%)	34(42.5%)	4(5%)	**<0.001¶**
LH(U/L)	9.0±5.8	7.7±6.0	**0.033****
FSH	6.5±2.0	6.9±2.4	0.484**
Estradiol(pg/mL)	37.7±20	26.6±15.3	**0.003****
TSH	2.6±1.8	2.1±1.1	**0.013****
PRL (ng/mL)	14.1±6.9	12.3±6.4	0.121**
DHEAS	367.5±165.9	267.1±106.3	0.003**
FT	1.9±0.9	1.5±0.6	0.031**
17OH-P	1.4±0.9	1.2±0.7	0.033**
CRP	3.5±3.7	3.0±2.3	0.786**
WBC	7.6±2.1	7.1±1.5	0.087*
TG	102.1±51.9	86.8±37.1	0.051**
LDL-C	69.5±25.4	65.9±27.2	0.423*
HDL-C	62.3±7.7	67.0±9.3	0.001*
VLDL-C	20.3±10.3	17.7±7.6	0.112**
TC	152.1±30.3	150.2±33.2	0.731*
B12	184.9±63.3	232.6±115.5	0.017**
Folate	6.9±2.2	6.4±1.7	0.085*
Ferritine	22.7±16.5	22.6±17.5	0.748**
Homocystein	12.8±3.3	10.3±0.7	<0.001**

Table 2. Correlation analysis of vitamin B12 with some parameters in PCOS and control groups

	PCOS		Control	
	r	p	r	p
BMI	-0.289	0.010	-0.087	0.445
WC	-0.258	0.022	-0.214	0.060
HC	-0.026	0.821	-0.147	0.199
WHR	-0.387	<0.001	-0.48	0.197
HOMA-IR	-0.095	0.421	-0.191	0.115
Homocystein	-0.176	0.120	-0.004	0.971

BMI: Body mass index, WC: Waist circumference, HC: Hip circumference, WHR: Waist-to-hip ratio, HOMA-IR: Homeostasis Model Assesment, r: Spearman correlation coefficient, p<0.05 is statistically significant

[OP-034]

Intrauterin insemination versus timed intercourse in ovulation induction cycles with clomiphene citrate for Polycystic Ovary sndrome: A retrospective cohort study

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Objective: Polycystic Ovary syndrome (PCOS) is one of the most common endocrinopaties in women of reproductive age, affecting between 6.5 and 8 percent of women overall. The main cause of infertility in women with PCOS is chronic anovulation, and clomiphene citrate (CC) is still the first choice for ovulation induction (OI) in those anovulatary women. Intrauterine insemination (IUI) is a simple, cheap and non-invasive method widely used in treatment of many infertility problems, although it is not considered as an assisted reproductive technique. The selection of accurate patient group, patient's age, permeability of fallopian tubes, duration of infertility, total motile sperm count, sperm morphology and preovulatory follicle number are important determinants for success in predicting the outcomes of this method. Previous studies reported that OI with CC and underwent timed intercourse (TIC) is as effective as that with IUI. Although the necessity of IUI in women with unexplained or mild male subfertility who undergo OI with CC is widely accepted, its role and success for anovulatory patients remains unclear. In this study, we aimed to evaluate the value of IUI versus TIC in CC cycles among couples with PCOS and normal semen analysis.

Material and Methods: We evaluated the medical records of one hundred and forty-seven infertile women with PCOS who attended University of Health Sciences, Zekai Tahir Burak Women's Health Training and Research Hospital, for infertility treatment. PCOS was diagnosed by using the Rotterdam criteria. Chronic anovulation was confirmed by displaying a serum level of progesterone <3 ng/mL during the midluteal phase. The partners of the patients had normozoospermia on semen analysis reports. All of the patients underwent hysterosalpingography which showed patency at least one tube. We administered CC 50-150 mg/day from day 2 to 5 of the spontaneous or induced cycle. Serial ultrasound examinations were performed during OI. When at least one follicle reached a maximum diameter of 17-18 mm, 250 mcgr of recombinant human chorionic gonadotropin (rhCG) was administered subcutaneously. The decision whether or not to perform IUI was made according to the couple's decision. IUI was performed once, 36 hours after hCG injection. For those who did not undergo IUI, the couples were instructed to have TIC on hCG day and subsequent 2 days.

Results: Of a total 147 OI cycles which were analyzed, 56 cycles were treated with IUI and 91 were with TIC. The groups were similar in terms of age, BMI, infertility type, infertility duration, number of gravidity, parity and abortion (p>0.05). Coit frequency and history of infertility surgery is higher in TIC group compared to IUI group, but these were not statistically significant. Also, no significant difference was observed between groups regarding the number of previous CC cycles (p>0.05). However, a significant difference was observed in overall pregnancy rates between the 2 groups (48.2% vs 11%, both p<0.001).

Conclusion: Compared to TIC, IUI increases both biochemical and clinical pregnancy rates in infertile women with PCOS who have undergone OI with CC.

Keywords: IUI, PCOS, clinical pregnancy rate, timed intercourse, clomiphene citrate

Table 1. Demographic, clinical and laboratory characteristics of the groups

Variables	IUI group (n=56)	Timed intercourse group (n=91)	p
Age (years)	26 (19-35)	24 (19-43)	0.197
BMI (kg/m²)	25.0±3.9	26.2±5.1	0.071
Gravidity	0 (0-3)	0 (0-4)	0.187
Parity	0 (0-3)	0 (0-2)	0.177
Number of abortion	0 (0-2)	0 (0-3)	0.656
Infertility duration (years)	3 (1-10)	3 (1-13)	0.082
Cigarette smoking	2 (3.6)	13 (14.3)	0.049
Infertility type Primary Secondary	 49 (87.5) 7 (12.5)	 68 (74.7) 23 (25.3)	0.063
Coit frequency/week	2 (1-4)	2 (1-8)	0.682
Prior surgery H/S L/S	 3 (5.4) 2 (3.6)	 5 (5.5) 2 (2.2)	0.884
FSH (U/L)	6.5±1.4	6.7±1.6	0.543
LH (U/L)	6.0 (2.5-37)	5.7 (1.6-2.9)	0.180
TSH (U/L)	2.1 (0.6-5.3)	2 (0.3-5.2)	0.088
PRL (ng/mL)	16.0 (2.7-32.0)	12.6 (0.8-26)	0.022
E2 (pg/mL)	34.5 (10.6-98)	36 (6-97)	0.230

BMI: Body mass index, H/S: Hysteroscopy, L/S: Laparoscopy. FSH: Follicle stimulating hormone, LH: Luteinizing hormone, PRL: Prolactin, TSH: Thyroid stimulating hormone, E2: Estradiol, Data are presented as mean ± standard deviation or median (minimum-maximum) Data are presented as mean ± standard deviation, median (minimum-maximum), number (percentage), p<0.05 is considered statistically significant

Table 2. Cycle characteristics of the patients among the groups

Variables	IUI group (n=56)	Timed intercourse group (n=91)	p
CC starting day of cycles 2nd 3th 4th 5th	 4 (7.1) 38 (67.9) 5 (8.9) 9 (16.1)	 13 (14.3) 57 (62.6) 12 (13.2) 9 (9.9)	0.348
CC dose 50 mg 100 mg 150 mg	 50 (89.3) 3 (5.4) 3 (5.4)	 69 (75.8) 20 (22) 2 (2.2)	0.019
Number of CC cycle	1 (1-3)	2 (1-4)	0.425
Cycle lenght (days)	13.5 (10-23)	13 (9-25)	0.891
Endometrial thickness on hCG day (mm)	8.5±2.0	8.8±2.2	0.413
Dominant follicle size on hCG day (mm)	20 (17-28)	19 (17-26)	0.058
Multifollicular development	21 (37.5)	33 (36.3)	0.880
Biochemical pregnancy	33 (58.9)	11 (12.1)	<0.001
Clinical pregnancy	27 (48.2)	10 (11)	<0.001

CC: Clomiphene citrate, Data are presented as mean ± standard deviation, median (minimum-maximum), number (percentage), p<0.05 is considered statistically significant

[OP-035]

Does vitamin D level have any effect on assisted reproductive treatment outcome? Our preliminary results

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Objective: Vitamin D has been shown to have an essential role for healthy reproductive system. We aimed to investigate the effect of vitamin D levels in patients attending for assisted reproductive treatment. The difference between the two subgroups of patients (pregnant vs non-pregnant) in terms of 25-hydroxyvitamin D [25(OH) D3] levels was the primary outcome measure of this study. The secondary outcome was the role of 25(OH)D3 in predicting pregnancy.

Material and Methods: This prospective cohort study consisted of 142 patients who have attended at Zekai Tahir Burak Women's Health Practice and Research Center Assisted Reproductive Clinic. The outcome of treatment according to 25(OH)D3 levels were compared between the groups (pregnant vs non-pregnant).

Results: There was no statistically significant difference between pregnant and non pregnant groups in terms of 25(OH)D3 levels (p=0.875) (Table 1). Area under ROC curve was 0.515 95% CI 0.407-0.624 with a p value of 0.779. ROC curve analysis showed that 25(OH) D3 levels cannot predict pregnancy in this cohort.

Conclusion: In conclusion, there was no statistically significant difference in serum 25(OH)D3 levels between pregnant and non-pregnant women after assisted reproductive treatment. As most of our study group were already deficient (79.6%), it is difficult to reach an exact conclusion. Further research with larger sample sizes with deficient and sufficient 25(OH)D3 levels which will provide more detailed information is warranted.

Keywords: Vitamin D, IVF, pregnancy, ART

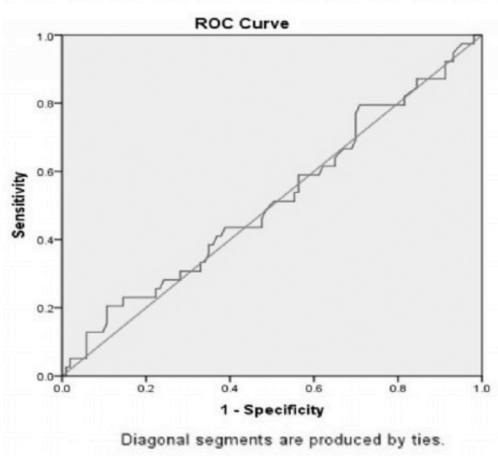


Figure 1. Area under ROC curve analysis of the serum 25(OH)D3 levels in terms of pregnancy

Table 1. Comparison of the pregnant and non-pregnant groups in terms of the classified serum 25(OH)D3 levels

Serum 25(OH)D3 level	Non-pregnant (n=103)	Pregnant (n=39)	Total
Severe deficient (VD <5 ng/mL)	7 (77.8)	2 (22.2)	9
Moderate deficient (5≤ VD <10 ng/mL)	39 (70.9)	16 (29.1)	55
Mild deficient (10≤ VD <20 ng/mL)	37 (75.5)	12 (24.5)	49
Insufficient (20≤ VD <30 ng/mL)	14 (73.7)	5 (26.3)	19
Sufficient (VD ≥30 ng/mL)	6 (60)	4 (40)	10
Data are presented as n (%). Pearson chi-square p value= 0.875			

[OP-036]

The effects of dehydroepiandrosterone (DHEA) treatment on ovarian reserve and ınfertility in patients with decreased ovarian response

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Objective: To evaluate the effect of DHEA on ovarian reserve and infertility by parameters of transvaginal ultrasonography, basal hormone levels and presence of pregnancy.

Material and Methods: In between 2008-2017 years, twenty-eight decreased ovarian reserve patients with infertility problem were evaluated retrospectively in this study. The age of patients and primary, secondary infertility status were recorded. Ovarian reserve was evaluated by basal hormone levels and transvaginal ultrasonography. Hysterosalpingography was performed for all the patients to exclude mullerian anomaly. Male factor was also investigated in all patients. Patients were categorized in two groups: premature ovarian deficiency (PrOY) and decreased ovarian reserve (DOR). The patients were treated with DHEA (Biosteron) 25 mg. tablet 2x1. Basal transvaginal ultrasonography and basal hormone levels were performed at the 2nd or 3th day of each cycle. The presence of pregnancy was investigated and DHEA were stopped in pregnant patients. This procedure had been continued for five months and all findings were recorded.

Results: The count of total cycle (n1) was 123; the count of total infertile was 28; primary infertile patients were 18 and secondary infertile patients were 10. While the mean age of primary infertile patients was 35.08, the mean age of the secondary infertile patients was 37.8. The treatment was stopped in one patient because of glucose intolerance, mild hirsutisms, acne and patient was excluded from the study. There was no side effect other than mild hirsutisms in other patients. Eight of nine patients became pregnant spontaneously and one patient became pregnant after IVF because of male factor. Pregnancy rate in per case was 9/28 (32.1%) and pregnancy rate in per cycle was 9/123 (7.3%). Live birth rate in per case was 8/28 (28.5%), live birth rate in per cycle was 8/123 (6.50%). The pregnancy rate in per case was 3/18 (16.66%); live birth rate in per case was 3/18 (16.66%); pregnancy rate in per cycle was 3/82 (3.66%); live birth rate in per cycle was 3/82 (3.66%), in primary infertile patients. The pregnancy rate per case was 6/10 (60%); live birth rate per case was 5/10 (50%); pregnancy rate in per cycle was 6/41(14.6%); live birth rate in per cycle were 5/41 (12%), in secondary infertile patients (Table 1 and Table 2). Of 14 patients, five patient became pregnant (35%) in premature ovarian deficiency group; pregnancy rate in per cycle was 5/64 (7.8%) and live birth rate was 5/64 (7.8%). Four of 14 patients became pregnant, and three of them reached term in decreased ovarian reserve group. Pregnancy rate in every cycle was 4/59 (6.7%) and live birth rate was 3/59 (5%) in decreased ovarian reserve group (Table 3).

Conclusion: After DHEA treatment, improvement in ovarian function, increase in ovarian reserve, presence of pregnancy and live birth were observed in some of patients with premature ovarian deficiency and decreased ovarian reserve group. Five of 14 patients with premature ovarian deficiency became pregnant, and all of them reached term in. Four of 14 patients with decreased ovarian reserve became pregnant, and three of them reached term.

Keywords: DHEA, decreased ovarian reserve, pregnancy

Table 1. Distrubition of pregnancies according to infertility status of patients with decreased ovarian response

Infertility status	Number of cases	Mean age	Number of pregnant cases %	Number of live births; (%)	Number of cyscles	Number of pregnancies per cycle (%)	Number of births per cycle (%)
Primary infertile	18	35.08	3; 14.2	3; 16.6	82	3/82 (3.6)	3/82 (3.6)
Secondary infertile	10	37.8	6; 60	5; 50	41	6/41 (14.6)	5/41 (12,19)

Table 2. Effect of DHEA application on pregnancy rate in poor responder patients, n (case count)= 28, n1 (cycles count)= 123

Total pregnancy rate	9
NSP/IVF pregnancy	8/1
Birth	8
Abortion	1
Side effect	1
Total cycles count	123
Cumulative pregnancy rate	9/28 (32%)
Pregnancy rate per cycle	9/123 (7.3%)
Cumulative live birth rate	8/28 (28.5%)
Live birth rate per cycle	8/123 (6.5)
NSP: Normal spontaneous pregnancy, IVF: In vitro fertilization	

Table 3. Pregnancy and live births according to subgroups of patients with decreased ovarian responded patients

	Case	Pregnancy count	Live birth count	Abortion	Pregnancy count per cycle (%)	Pregnancy per case (cumulative) count (%)	Pregnancy per patient count (%)	Live birth per patient (cumulative) count (%)
PrOD	14	5	5	0	5/64 (7.8)	5/14 (35)	5/14 (35)	5/14 (35)
DOR	14	4	3	1	4/59 (6.7)	4/14 (28)	4/11 (36)	3/11 (27)
PrOD: Premature ovarian deficiency, DOR: Decreased ovarian reserve								

[OP-037]

Examination the effect of varenicline, an agent used for smoke addiction treantment, on women reproductive health by evaluating ovarian follicule count, endometrial histology, biochemical hormones and free oxygen radicals

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Objective: In this study we aimed to evaluate the ovarian follicule co unt, endometrial histology change, biochemically hormone levels and free oxygen radicals after varenicline treatment.

Material and Methods: Forty Wistar-Albino female rat will be divided into 4 groups: Grup 1 (n=10): Smoking group – 30 minutes twice per day / 1 month; Grup 2 (n=10): Varenicline treatment (1 mL/kg s.c – 2 weeks) after 1 month smoking; Grup 3 (n=10): Only varenicline treatment group - Varenicline (1ml/kg s.c) – 2 weeks; Grup 4 (n=10): Control group; Experiment period: 2 months. At the end of treatment, after sacrifying the rats, right ovaries and endometrial tissues will be excised in order to investigate the ovarian follicules and endometrial glandular-stromal tissues. Hormone levels [anti-mullerian hormone (AMH), follicule stimulating hormone (FSH), luteinizing hormone (LH), estradiol (E2)] and free oxygen radicals [total sulfhydryl (RSH) malondialdehyde (MDA)] will be evaluated and compared among the groups. By the way, the effects of varenicline, a nicotinic receptor agent used for treatment of smoking self administration, primarily will be evaluated histologically and biochemically on women reproductive health.

Results: When we compared varenicline and smoking group to control group, we found that AMH and LH levels istatistically significant different. These values were respectively AMH 1.5 and 1.01 (P=0.05); LH values 0.36 and 0.64 (p<0.05) Pathologic examination also showed that primordial follicles count less in the smoking + vareiclin group than control group.

Conclusion: Vareniclin and smoking effect negatively AMH levels, and also effect negatively primordial counts

Keywords: Varenicline, smoke addiction, ovary, endometrium, free oxygen radicals, alfa4beta2 nikotinic receptor

[OP-038]

The expressions of Oct-4 and CD44 in eutopic endometrial tissue samples of women with endometriosis

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Objective: Endometriosis is an estrogen-dependent inflammatory disease that causes infertility and chronic pelvic pain. Ovarian endometrioma is the most common form of endometriosis. Oct-4 is a molecular marker for pluripotent cells. It plays an essential role in maintaining the undifferentiated state needed for cell pluripotency. Previous studies have demonstrated that Oct-4 is expressed in the embriyonic stem cells and the germ cells and the endometrial cells. CD44 is an integrated membrane protein that acts as a multifunctional cell surface adhesion molecule that plays a role in cell-cell and cell-matrix interactions. The aim of this study was to investigate the expression paterns of Oct-4 and CD44 in eutopic endometrial tissue from women with endometrioma and compared them with control endometrial tissues from women without endometrioma.

Material and Methods: In this study, the Oct-4 and CD44 expression in the eutopic endometrial tissue samples from women with endometrioma (n=18) was evaluated and compared with control endometrial tissue samples from women without endometrioma (n=20).

Results: Immunohistochemical expression of Oct-4 was significantly higher in eutopic endometrial tissue speciment of women with endometrioma than control subjects ($p<0.05$). However, the expression of CD44 was significantly lower in eutopic endometrial tissue samples of women with endometrioma than control endometrial tissue samples ($p<0.05$).

Conclusion: The discovered differences in eutopic endometrial tissue samples in women with and without endometrioma may indicate a possible relationship between these stem cells molecules and moleculer basis of endometrioma.

Keywords: Oct-4, CD44, stem cells, endometrioma, eutopic endometrium

[OP-039]

Evaluation of ımplantation success at in vitro fertilization treatment with endometrial color doppler dynamic tissue pefusion measurement

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Objective: Two key factors in the success of the IVF stand out: oocyte/embryo quality and endometrial receptivity. In our study; endometrial thickness, endometrial morphology were examined and dynamic tissue perfusion measurement was performed by color Doppler ultrasonography in order to determine the possibility of endometrial receptivity and implantation.We aimed to reveal the relationship between implantation success and endometrial perfusion during IVF treatment.

Material and Methods: The prospective cohort type study was initiated after the approval of Ege University Medical School Clinical Research and Ethics Committee. The study included 30 volunteers, who were decided to treat with IVF/ICSI-ET between July and October 2017 and met the criteria for inclusion. All patients were over-stimulated with GnRH antagonists and recombinant FSH. On the day of administration of human chorionic gonadotropin (hCG), endometrial thickness and morphology were recorded. The same parameters were measured on the day of transfer with a 6-10 MHz vaginal probe of a 2D ultrasonogram of Siemens Acuson Antares (Siemens Medical Solution, USA, Inc.) In addition 15-second uterine image was recorded by using color doppler feature on midsagittal section and pre-sets (-3/0 dB, flow low, VEL 5.0 MHz, PRF 305 Hz). Endometrium boundaries were determined as ''region of interest'' (ROI) on the image opened with PixelFlux Chameleon Software (GmbH, Münster Germany). The program calculates area (A) and velocity (V) for all color pixels in the ROI using the color scale. Intensity (I) is calculated with I (cm/sec)= V(cm/sec)*A (cm^2)/AROI (cm^2). Evaluation of both of the red and blue pixel are expressed as the mix. In our work, average values for Vmix, Amix and Imix were recorded.The resistance index (RI) and pulsatility index (PI), tisue RI (TRI) and tissue PI (TPI) were calculated for Vmix. Patients who had fetal heart beat were accepted as clinical pregnant. Mann-Whitney U and chi-square tests were used for statistical examination.

Results: The cases with clinical pregnancy were defined as Group 1 (n=9) and others as Group 2 (n=21). The demographic characteristics of the two groups, baseline hormone profile, AMH values and infertility etiology distributions were similar (Table 1). The groups were similar in terms of applied ovulation induction and results (Table 2). On the day of hCG injection, endometrial morphology was viewed as a ''triple line''. On the day of embryo transfer, 88.9% (n=8) of Group 1 and 90.5% (n=19) of Group 2 were hyperechogenic (p=0.667). There was no difference between groups in terms of embryo transfer day (p=0.842) and embryo grade (p=0.398). Grade 1 embryos were transferred in 55.6% (n=5) of Group 1 and 71.4% (n=15) of Group 2. There was no statistically significant difference in the comparison of PixelFlux data (TRI and TPI values, the average values for Vmix, Amix, and Imix) between two groups (Table 3).

Conclusion: Our study is a pilot study showing that in-situ endometrial TDPM can be performed using PixelFlux Software. Analysis of the obtained data suggests that endometrial perfusion measurement is limited to estimate the implantation probability. In conclusion working with larger patient series may establish a relationship between endometrial perfusion and implantation success and that our study will be a pioneering research in this regard.

Keywords: Endometrial dynamic tissue perfusion measurement, implantation success, in vitro fertilization

Table 1. Comparison of demographics and baseline hormone profile for groups

	Group 1 Mean ± SD	Group 2 Mean ± SD	p
Age (year)	33.1±4.0	31.6±4.0	0.398
BMI (kg/m^2)	24.7±2.7	25.2±3.9	0.734
Duration of infertility (year)	4.0±1.8	4.0±2.6	0.665
FSH (mIU/mL)	8.1±2.4	7.1±2.2	0.205
LH (mIU/mL)	7.6±3.7	5.9±3.5	0.174
E2 (pg/mL)	35.8±11.5	34.0±15.0	0.651
TSH (μIU/mL)	2.0±0.9	1.8±0.7	0.619
Prolactin (ng/mL)	17.7±13.6	20.9±11.2	0.267
AMH (ng/mL)	3.5±3.3	3.0±2.6	0.928

Table 2. Comparison of ovulation induction results of the groups

	Group 1 Mean ± SD	Group 2 Mean ± SD	p
Duration of induction (day)	7.7±1.3	6.9±0.9	0.150
Total FSH dose (IU)	1652±1124	1553±504	0.539
Peak E2 (pg/mL)	1227±605	1052±360	0.428
hCG day endometrial thickness (mm)	10.8±1.9	10.6±1.8	0.982
Number of mature oocytes	6.2±4.6	7.5±3.7	0.246
Number of days in the cycle	15.1±1.3	14.2±1.0	0.053
ET day endometrial thickness (mm)	11.4±1.9	10.6±1.8	0.297

Table 3. Analysis of TRI, TPI and Vmix, Amix and Imix average values

	Group 1 (Mean ± SD)	Group 2 (Mean ± SD)	p
TRI	0.88±0.25	0.82±0.20	0.128
TPI	3.93±2.40	6.36±8.16	0.982
Vmix	0.58±0.35	0.76±0.41	0.213
Amix	0.05±0.04	0.03±0.04	0.205
Imix	0.02±0.02	0.02±0.02	0.365

[OP-040]

Medical treatment of isthmocele with gonadotropin releasing hormone agonist (before frozen thawed embryo transfer- A preliminary report

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Objective: To evaluate the effect of gonadotropin releasing hormone (GnRH) agonist pretreatment in patients with isthmocele before frozen thawed embryo transfer cycles.

Material and Methods: Retrospective case series patients: Patients with isthmocele and secondary infertility interventions: Patients received three cycles of GnRH agonist (Leuprolide Acetate- Lucrin Depot 3.75 Abbot Turkey) pretreatment before frozen thawed embryo transfer. Main outcome measures: Volume of isthmocele, pregnancy rate, clinical pregnancy rate, and live birth rate.

Results: Retrospective data of 8 patients with isthmocele and secondary infertility were evaluated. In all cases the volume of isthmocele decreased after GnRH agonist treatment. Mean volüme of isthmocele was 377 mm^3 and 44.1 mm^3 before and after treatment with GnRH agonist respectively. Two of the cases (25%) became pregnant after frozen thawed embryo transfer and these two patients delivered healthy babies.

Conclusion: GnRH agonist pretreatment seems to be effective to reduce the isthmocele volüme before in vitro fertilizatipn cycles. However clinical pregnancy rates does not seem to be improved. Further studies are needed about the subject.

Keywords: Isthmocele, infertility, GnRH agonist, medical treatment

Context: *Isthmocele is a reservoir-like pouch defect on the anterior wall of uterine isthmus and is related with previous cesarean section scar. A clear association was demonstrated between isthmocele and secondary infertilty.*

[OP-041]

Evaluation of dual trigger with combination of gonadotropin releasing hormone agonist and human chorionic gonadotropin in imprving oocyte-follicle ratio in normo-responder patients

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Objective: To investigate whether dual triggering of final oocyte maturation with a combination of gonadotropin-releasing homone (GnRH) agonist and human chorionic gonadotropin (hCG) can improve mature oocyte-follicle ratio for normo-responder patients in GnRH-antagonist *in vitro* fertilization-intracytoplasmic sperm injection (IVF-ICSI) cycles.

Material and Methods: Retrospective cohort study. Patients: Normal responders to controlled ovarian hyperstimulation who were undergoing IVF-ICSI with a GnRH antagonist protocol. Interventions: Standard dosage of hCG trigger (10000 IU hCG) versus dual trigger (0.1 mg of triptorelin and 10000 IU hCG). Main outcome measures: Oocyte-follicle ratio, mature metaphase 2 (M2) oocytes, clinical pregnancy, and implantation rates per cycle.

Results: A total of 294 patients were included (hCG trigger/control group: n=178; dual trigger/study group: n=116) in the study. All follicles ≥10 mm diameter were aspirated. Number of aspirated follicles, oocytes and M2 oocytes retrieved per aspirated follicles, implantation rate, and clinical pregnancy rate per cycle were evaluated. There was no statistically significant differences in terms of M2 oocyte ratio per aspirated follicle, implantation rate and clinical pregnancy rate between the dual trigger group and hCG only group respectively (45.7% vs 51%; 35.4% vs 30.3% and 45% vs 40%). Oocyte/follicle ratio was significantly higher in dual trigger group (68.2% vs 63.8% p=0.028).

Conclusion: Dual triggering in normal responders with a GnRH-agonist and a standard dosage of hCG is superior to hCG only protocol in terms of oocyte/follicle ratio but does not improve M2 oocyte, implantation and clinical pregnancy rates in GnRH-antagonist cycles.

Keywords: Oocyte, follicle, dual trigger, maturation, in vitro fertilization

Context: *Dual trigger of final oocyte maturation with a GnRH-agonist and a standard dosage of hCG in normal responders was found to improve implantation, clinical pregnancy, and live-birth rates in GnRH-antagonist IVF cycles.*

[OP-042]

Oocyte pick up day mucus removal: Does it have a positive effect on pregnancy rates?

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Objective: Mucus removal that would be done on the day of embryo transfer could be done on Oocyte pick up (OPU) day and this practice might be related with better pregnancy rates since it is unlikely to cause uterine contractions during the embryo transfer. We compared the effects of mucus removal done on OPU day, done on transfer day or no removal at all on success rates of the treatment in three groups.

Material and Methods: We designed a prospective match control study. There were 131 cycles in which mucus removal was done on either OPU day or embryo transfer day (64 and 67 cycles respectively) and in 411 cycles mucus removal was not done and these patients constituted the control group.

Results: After mucus removal on OPU day, mucus removal on embryo transfer day and no mucus removal done at all, pregnancy rates were calculated as 40.6 %, 29.9 % and 23.1% respectively and the difference among the groups was statistically significant (p=0.009).

Conclusion: Mucus removal on OPU day or on embryo transfer day improves pregnancy rates. It can be included in the routine practice, since it may potentially minimize cervical trauma and uterine contractions and thus improve success in IVF/ICSI treatments.

Keywords: Cervical mucus, embryo transfer, pregnancy rates, transfer timing, oocyte pick up

Table 1. Pregnancy counts and rates of all three groups

	Mucus removal on OPU day (n/%)	Mucus removal on embryo transfer day (n/%)	No mucus removal (n/%)	p	p1	p2	p3
Pregnancy	26 (40.6%)	20 (29.9%)	95 (23.1%)	0.009	0.197	0.003	0.232

p1: Comparison of opu day cervical mucus removal group with embryo transfer day mucus removal group, p2: Comparison of opu day cervical mucus removal group with no mucus removal group, p3: Comparison of embryo transfer day cervical mucus removal group with no mucus removal group *Pearson chi-square test was done

[OP-043]

The relationship between depression and quality of life in infertile couples

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Objective: In this study, we aim to investigate the depression rate and quality of life (QoL) and their relationship in infertile couples via Beck Depression Inventory (BDI) and Fertility QoL (FertiQoL), to identify the factors associated with these parameters and to assess clinical reliability of FertiQoL in Turkish men.

Material and Methods: We performed a cross-sectional study in an university infertility clinic and distributed FertiQoL and BDI to infertile couples at their first admission between November 2016 and March 2017. Demographic characteristics, infertility etiology and treatment outcomes were recorded from the medical records. Samples were tested with Shapiro-Wilk test to determine normality of distributions. Mann-Whitney and Kruskal-Wallis tests were used for the comparisons. Internal consistency of the FertiQoL questionnaire in men was analyzed using Cronbach's alpha and the correlation between these questionnaires using Pearson's R correlation coefficient. A p value of <0.05 and $\alpha>0.60$ were considered statistically significant.

Results: Two hundred and fifteen women and 165 men were included in this study. The mean of women's total FertiQoL score and BDI score were significantly lower than men's result (Mean total FertiQoL score for women: 70.01±12.51, for men: 74.02±12.68 p=0.007; mean BDI score for women: 7.76±7.37, for men: 5.18±6.27 p=0.004). Women with secondary infertility had higher scores in FertiQoL than primary infertility group (p=0.014). The association between infertility etiology and questionnaire scores were not statistically different. BDI scores were lower than the cut-off (17) in 90.9% of the patients. In multivariate analysis, there wasn't any statistically significance relationship between FertiQoL scores and the independent variables as age, infertility time, previous treatment history etc. Regression analysis showed a negative correlation between the scores of BDI and FertiQoL (p=0.01). Besides FertiQoL had relatively high internal consistency in men (Cronbach's α: 0.876).

Conclusion: Emotional status of the patient is a well known factor for affecting the success of the treatment in infertility. Clinician should concern for treatment compliance of women especially because of their lower QoL and higher depression score. Our study demonstrated the negative correlation between FertiQoL and BDI. FertiQoL questionnaire can accurately measure QoL in both gender. To our knowledge it is the first study of clinical reliability of the Turkish version of FertiQol in men.

Keywords: Couples, depression, infertility, quality of life, questionnaires

Table 1. Mean scores of the FertiQoL according to BDI's cut-offs

Mean		Minimal	Minimal	Mild	Mild	Moderate	Moderate	Severe	Severe	p
		SD	Mean	SD	Mean	SD	Mean	SD	Mean	
Total FertiQoL	Female	72.60	12.00	66.56	10.05	59.65	11.66	58.15	21.12	0.001
Total FertiQoL	Male	76.95	11.14	64.09	8.56	56.16	14.13	52.94	9.36	0.001
SD: Standart deviation										

Table 2. Correlations between BDI and FertiQoL

	BDI	
FertiQoL scale	Female	Male
Emotional	-0.312*	-0.552*
Mind-body	-0.351*	-0.586*
Relational	-0.166*	-0.389*
Social	-0.272*	-0.512*
Environment	-0.122	-0.072*
Tolerability	-0.231*	-0.405*
Total core score	-0.364*	-0.634*
Total treatment score	-0.218*	-0.276*
Total FertiQoL Score	-0.366*	-0.598*
		*p=0.01

[OP-044]

Intra- and interobserver variability in diagnosis of congenital uterine anomalies

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Objective: A new classification system of congenital uterine anomalies developed by the European Society of Human Reproduction and Embryology and the European Society for Gynecological Endoscopy includes a previously undescribed anomaly; dysmorphic uterus (DU - Class U1). DU is defined as a uterus that has a normal serosal contour with an abnormal shape of the uterine cavity without septa. The definition of DU is not based on well-defined criteria. Hence, the diagnosis of DU can be observer dependent, leading to inconsistency. We aimed to assess inter- and intra-rater reproducibility of the diagnosis of DU with hysterosalpingography.

Material and Methods: An online survey including 15 hysterosalpingography images were applied to participants of the Biannual Scientific Meeting of the Turkish Society of Reproductive Medicine. Categorical agreement in the diagnosis of various uterine anomalies as well as normal uterus was calculated.

Results: One hundred fifty-four participants completed the survey. The categorical agreement was high in the diagnosis of normal uterus and DU, but low for indeterminate forms between normal and clearly DU. There were two pairs of the normal uterus, two pairs of DU and two pairs of the indetermined uterus. Flipped and colour modified forms of the same HSG images were shown to the same observers in mixed order. The reproducibility of the diagnosis was assessed. For normal uterus, it was 93% and 88%, for DU it was 81% and 78%, which were comparable. In contrast, when an indeterminate form was shown, the diagnosis was 62% and 86% for the normal uterus and 9% and 16% for DU, which shows significant difference among observers.

Conclusion: Limitations of hysterosalpingography in the visualization of external contour as well as lateral wall thickness and the vagueness of the definition of DU result in low reproducibility of diagnosis of DU with HSG. Given both diagnostic inconsistency and the absence of evidence for a beneficial effect of surgical correction of DU, such intervention should be offered with caution. Apparently, HSG is not a reliable diagnostic method for DU. Quantitative reproducible criteria are required.

Keywords: Uterine anomalies, hysterosalpingography, dysmorphic uterus

[OP-045]

Systemic inflammation and coagulation status in adenomyosis

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Objective: Adenomyosis is viewed, first and foremost, as hormonal disease, featuring increased local production of estrogens due to molecular aberrations in steroidogenesis. It is also conceptualized as pelvic inflammatory condition, characterized by increased production of pro-inflammatory cytokines and chemokines. It turns out that inflammation and coagulation -long regarded as two separate entities- are two major host-defense systems that interact with each other. In fact, adenomyosis is intricately entwined: inflammation activates the coagulation cascade and coagulation modulates the inflammatory. Taking cues from the cyclic bleeding of ectopic endometrium, a commonality share by both endometriosis and adenomyosis, and the finding that activated platelets play a critical role in initiating inflammation, it was reasoned that platelets must be involved in adenomyosis. The aim of this study is to investigate the coagulation and inflammation status of women with histopathologically confirmed adenomyosis.

Material and Methods: This retrospective cohort study used data from a single medical center from 2012 to 2017. A total of 396 women who underwent surgery were evaluated. The case group (n=295) included patients with a histopathological diagnosis of adenomyosis. The control

group (n=101) included women with a surgical diagnosis of other benign gynecologic pathology. The routine preoperative tests included complete blood count parameters, activated partial thromboplastin time, prothrombin time and international normalized ratio (INR) were obtained at a maximum of 1 month before surgery.

Results: In this study age of the control group patients was higher than adenomyosis group (53.85±9.8 years vs 51±6; p=0.048). Monocyte and platelet count was higher in patients with adenomyosis when compared to controls respectively, (0.41±2.24; p=0.001 and 297.49±80.72; p=0.004) whereas as an inflammatory marker of neutrophil-lymphocyte ratio were no statistically significant difference between two groups (p=0.72, p=0.78). Although in the normal range, women with adenomyosis had significantly low INR than controls (1.00±0.09 vs 1.01±2.69; p=0.030). Conversely, no difference was found for prothrombin time, neutrophil count, mean platelet volume and lymphocyte count between women with adenomyosis and controls. Patients with adenomyosis had low hemoglobin levels (11.7±1.79 vs 12.1±1.5; p=0.015) and low hematocrit levels (35.5±4.70 vs 36.5±4.01; p=0.031).

Conclusion: Monocyte and platelet count is higher in women with histopathologically diagnosed adenomyosis patients when compared with the other benign gynaecologic pathology control group. In addition, women with adenomyosis have shortened INR. Elevated monocyte and platelet count and low INR in patients with adenomyosis may reflect an inflammatory systemic status in these patients. Further studies are warranted to confirm our findings and to assess the role of systemic inflammatory and coagulation markers in the pathophysiology of adenomyosis.

Keywords: Adenomyosis, inflammation, coagulation, neutrophil-lymphocyte ratio

[OP-046]

The value of neutrophil-lymphocyte ratio and platelet lymphocyte ratio in Mdetermining the rupture risk in tubal ectopic pregnancies

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Objective: The aim of the present study is to evaluate the diagnostic value of NLR and PLR in determining the rupture risk in tubal ectopic pregnancies and to compare withthe intraoperative findings.

Material and Methods: We retrospectively reviewed patients who underwent surgery for tubal ectopicpregnancy diagnosed in the Etlik Zübeyde Hanım Women's Health Training and Research Hospital between June 2014 and July 2016. A total of 142 patients with tubal ectopic pregnancy diagnose included in this study. Tubal pregnancy diagnose was made by ultrasound and tubal lumine was measured. Patients had divided into 2 groups for statistical analyses. Patients with intraoperatively diagnosed tubal rupture had selected for study group, while patients without tubal rupture findings had selected for control group. Both groups werecompared for neutrophil tolymphocyte ratio (NLR), platelet to lymphocyte ratio (PLR) and also ultrasonographic findings. NLR and PLR were obtained fromthe absolute neutrophil count or platelet count, respectively, divided by the absolute lymphocyte count. The threshold level of ruptureexistence is determined via receiver operating characteristic (ROC) test.

Results: A total of 142 patients were included in the final analysis. According tooperation and final histopathological reports, there were 72 (52.7%) patients with tubal rupture and 70 (49.3%) patients without rupture. Eighty-three (58.5%) patientshad ectopic foci located in the right tube and 59 (41.5%) patients had left-sidedectopic pregnancy. Platelet andneutrophil levels were significantly higher in the tubal rupture group (p<0.05). Both NLR and PLR levels were found significantly higher in the tubal rupture group whencompared with non-ruptural ectopic pregnancy group (4.62±3.13 vs 2.67±1.43, 162.94±63.61 vs 115.84±41.15, p<0.001). According to the ROC analysis performed for thediagnostic performance of tubal diameter measurement, β-hCG, NLR and PLR levelsfor tubal rupture, the AUC were 0.732, 0.648, 0.714 and 0.728, respectively (Table 1) and all of these factors were significantly associated with histopathologicallyconfirmed tubal rupture (p<0.01). The best NLR cutoff value for distinguishing the groups was 2.74 with 65.3% sensitivity and 71.4% specificity. The cut-off value was determined to be 132.56 for PLR with 63.9% sensitivity and 68.6% specificity. In the currentstudy, a significantly higher NLR and PLR were determined in patients with tubal rupturecompared to those without rupture in ectopic pregnancies. In addition, NLR and PLR were found positively correlated with serum β-hCG levels and tubal luminemeasurement in ruptured tubal pregnancies.

Conclusion: The goal of our study was to help for early decision of appropriate therapy with combination of ultrasonography and b-Hcg at initial admission of patient with tubal ectopic pregnancy by using simple routine heamatologic tests. We believe that this is the first study in the literature that reveals a relationship between NLR/PLR and rupture risk in patient with tubal ectopic pregnancy.

Keywords: Platelet lymphocyte ratio, neutrophil lymphocyte ratio, ectopic pregnancy, biomarker

Tablo 1. ROC curve characteristics of the discriminative factors

	AUC	SD	p	95% CI	Cut-off value	Sensitivity	Specify
Tubal diameter (mm)	0.732	0.042	<0.001	0.649-0.815	18.5	75%	62.9%
β-hCG (mIU/mL)	0.648	0.046	0.002	0.557-0.739	3706	75%	54.3%
NLR	0.714	0.043	<0.001	0.631-0.798	2.74	65.3%	71.4%
PLR	0.728	0.041	<0.001	0.646-0.809	132.56	63.9%	68.5%

[OP-047]

Endometriosis in an episiotomy scar: A case report

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Endometriosis is defined as the presence of endometrial stroma and glands outside of the uterine cavity. It is a chronic disease found most commonly in women of reproductive age. Perianal endometriosis is a rare form of extragenital endometriosis and is usually situated in episiotomy scars. In this study we presented a rare case of endometriosis in the episiotomy scar tissue which is presented as perineal mass. A 35 year old female patient referred for the development of a tender perianal mass at the episiotomy site associated with perianal pain and pruritus. Digital examination revealed a hard mass measuring 2 cm x 2 cm in the right anterior perianal region, adjacent to an episiotomy scar. During menstrution cycles, pain intense increases before and immediately after the onset of menstrual bleeding. Her symptoms started 3 months ago where a mediolateral episiotomy was performed during a normal vaginal delivery. She had one vaginal delivery with episiotomy seven years previously. Perianal examination showed an episiotomy scar in the right mediolateral position. Diagnostic tools used included transvaginal ultrasonography and magnetic resonance imaging. The mass was operated and the histopathologic examination of the mass confirmed perineal endometrioma in an episiotomy scar. Intraoperatively; frozen sections of the tissue showed endometrial type glands and stroma embedded in a fibroconnective tissue containing mild inflammatory cells (Figure 1). Evidence of chronic hemmorrhage was identified by hemosiderin laden macrophages scattered among endometrial stromal cells. Intraoperative histopathologic diagnosis was endometriosis externa. Permanent sections of the formalin-fixed and paraffin embedded tissue stained with Hematoxylin and Eosin showed similar findings as frozen sections. Microscopic examination revealed variable sized ectopic endometrioid glands within cellular endometrial type stroma surrounded by a dense fibroconnective tissue (Figure 2). Pseudoxanthoma cells filled with hemofuscin pigment were also identified in stroma around glandular structures (Figure 3). CD10 immunohistochemistry showed cytoplasmic positivity in endometrial stromal cells (Figure 4). No recurrence was noted on the postoperative course. The recovery was uneventful with excellent functional and esthetic results. Two months after operation, woman is asymptomatic.

Keywords: Esndometriosis, perianal pain, episiotomy scar

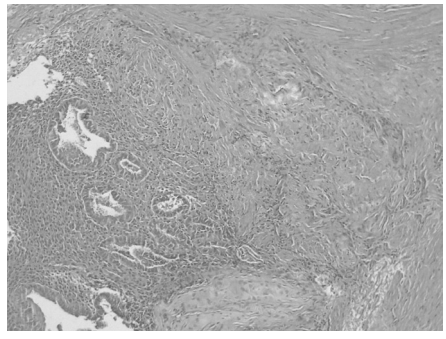


Figure 1. X100, H&E, endometrial type of glands and stroma within fibroconnective tissue

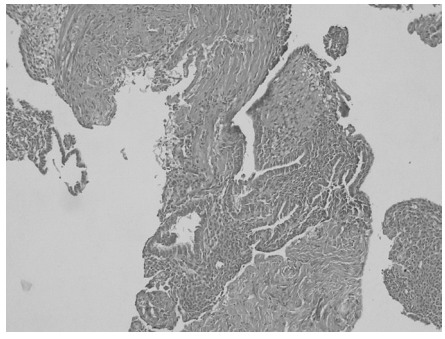


Figure 2. X100, H&E, ectopic endometrioid glands with cellular endometrial type stroma

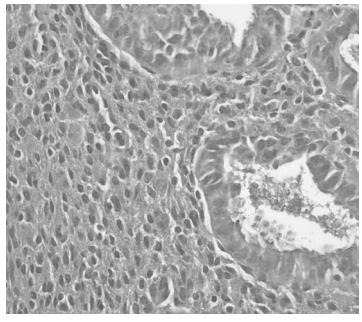


Figure 3. X400, H&E, hemofuscin pigment filled macrophages in endometrial type stroma

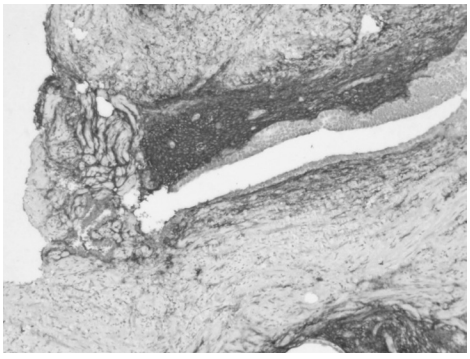


Figure 4. X100, CD10 immunopositivity in cytoplasms of endometrioid type stromal cells

[OP-048]

Comparison with that of other available treatment modalities of ultrasound guided drainage for treating tubo-ovarian abscess

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Objective: The present study retrospectively evaluated the medical records of patients who underwent treatment for tubo-ovarian abscess (TOA) at our clinic and investigated the importance of USG-guided drainage compared with that of other available treatment modalities.
Material and Methods: Medical records of 100 patients with TOA who were treated and followed up at the Department of Obstetrics and Gynecology, School of Medicine, Dicle University, between January 2009 and April 2015 were reviewed retrospectively. Demographic data, risk factors, clinical and laboratory findings, treatment modalities used, and complications observed were recorded for each patient.
Results: The mean age of the patients was 36.46±11.6 years. Of the 100 patients, 10% were menopausal women. Pelvic pain was the most common complaint in all (100%) patients. History of intrauterine or intra-abdominal intervention within 6 months was the most common risk factor (60.5% patients) for TOA development. Of the 100 patients, 25% had fever of ≥38 °C, 55% had leukocytosis, 85% had high sedimentation rate, and 92% had high CRP levels. No significant difference was observed between leukocytosis development and treatment modality used ($p>0.05$). Of the 100 patients, 38% underwent medical treatment alone, 47% underwent medical treatment followed by surgical treatment, and 15% underwent medical treatment followed by USG-guided drainage. In all, 34 (72.3%) patients who underwent the surgical treatment required fertility-sparing surgery. Intraoperative bowel injury (6.3% patients) and wound site infection (8.5% patients) were the common complications reported in patients undergoing the surgical treatment. The mean duration of hospital stay was 7.9±6 days. The longest duration of hospital stay (10.5±3 days) was observed in a patient who underwent USG-guided drainage.
Conclusion: In patients with TOA, the first step of treatment, i.e., broad-spectrum antibiotherapy, increases abscess size. Moreover, significant number of patients with bilateral abscesses require additional intervention (surgery). Our findings suggest that USG-guided drainage should be considered in patients who do not respond to medical treatment and who do not wish to undergo surgical treatment.
Keywords: Tubo-ovarian abscess, medical treatment, surgical treatment, USG-guided drainage

[OP-049]

Evaluation of "Leucocytic Metabolic Index Value" in Polycystic Ovary syndrome

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Objective: Many structural and metabolic changes take place in Polycystic Ovary syndrome (PCOS). The preference of metabolic pathway depends primarily on the oxygen and nutrient concentration of the medium. When the oxygen concentration is insufficient, anaerobic glycolytic pathway is activated so that cells can continue to survive under low oxygen concentrations. Normal and healthy cells usually use aerobic glycolysis otherwise metabolically unhealthy cells, like cancer cells, use an aerobic glycolysis. We aimed to investigate whether the aerobic glycolytic pathway can shift to the anaerobic glycolytic pathway.
Material and Methods: Twenty-five women with with PCOS and twenty healthy female volunteers were included into the study. Leucocytic Metabolic Index Value and serum androgens levels were measured. This value was calculated from the anaerobic and anaerobic glucose utilization rates of the cell.
Results: Metabolic index values what were measured in the leukocyte were significantly higher in the PCOS group ($p<0.05$).
Conclusion: We demonstrated that metabolic index values in leucocyte were increased in PCOS patients. It seems that the aerobic glycolytic pathway can shift to the anaerobic glycolytic pathway in PCOS.
Keywords: Aerobic glycolytic pathway, the anaerobic glycolytic pathway, metabolic index value, PCOS

[OP-050]

Transvaginal myoma uterine morcellation during vaginal hysterectomy: Preliminary results

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Objective: Hysterectomy which is performed to manage symptomatic uterine fibroid, is the second most frequently performed surgical

procedure worldwide second only to cesarean section. Vaginal hysterectomy (TVH) experience faster recoveries, fewer complications, better cosmetic results and shorter hospitalizations compared with patients with abdominal hysterectomy (TAH). TVH is less frequently performed or not considered when the weight or size of the uterus and fibroid contribute to additional difficulty during surgery Vaginal morcellation is the oldest form of tissue fragmentation to remove large specimens in gynecologic surgery. Techniques for removing large leiomyoma uteri during TVH include coring, bivalving, myomectomy, and wedge resection. This approach has a shorter operating time, decreased morbidity, decreased blood loss, faster recovery, and high anatomic success rates and generally yields satisfactory results. Preoperative evaluation is advised before a procedure involving uterine or leiomyoma morcellation. Although there is no completely reliable method to distinguish benign leiomyoma disease from uterine leiomyosarcoma.

Material and Methods: For this study of all consecutive women who underwent TVH and leiomyoma morcellation. For uterine fibroid in a university-affiliated tertiary medical center from January 2016 to february 2018. Morcellation was performed by bringing the uterus into the vagina and by performing coring, bivalvingwedge resection techniques to reduce the volume of the specimen.

Results: A total of 32 patients with larger uteri treated with vaginal hysterectomies were included in this study. The mean age of the women who underwent transvaginal morcellation was 54.5 (SD ± 4.7) years. Mean BMI of the patients was 28.0 (SD ± 5.1) kg/m^2. The mean operative time was 121 minutes. The mean uterine size was 469 (SD ± 297) gram. Only 3 had major postoperative complications of a cuff abscess requiring drainage by transvaginal route. There were no intraoperative bowel and ureter injury during procedure. No patient was needed for laparatomy for the complcations of the procedue.

Conclusion: TVH has the short operative time, cost effective, lowest blood loss, shortest hospital stay, lowest risk of infection, fastest bowel recovery and lowest postoperative pain score when we compare abdominal hysterectomy and laparoscopic hysterectomy. Ability to establish an anterior peritoneum and posterior cul-de-sac opening is an important factor in determining the success of TVH. Pelvic endometriosis or dense pelvic adhesions play role on the success of the procedure. For enlarged uterus morcellation of the uterus and leiomyoma tissue is necessary for delivery of the specimen and operation comfort for the surgeon. Vaginal technique of morcellation of uyerus with leiomyoma uteri appears to be a safe and efficient method for the reduction of uterine size transvaginally.

Keywords: Vaginal hysterectomy, myoma uterine, morcellation



Figure 1. Morcellated myoma uterine and uterus specimen



Figure 2. Uterus material after morcellation and hystererctomy

[OP-051]

BMP-2 and FNDC5 secretion capacity of leiomyoma, myometrium and endometrium cells

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Objective: Local growth factors secreted from leiomyoma cells affects the myometrium and endometrium functions. It has been reported that bone membrane protein-2 (BMP-2) expression in the endometrium is necessary for successful homing, attachment and implantation of embryos. Expression of receptivity genes is blocked in women with leiomyomas despite treatment with recombinant human BMP-2. In the present study, we aimed to determine BMP-2 and fibronectin type 3 domain-containing protein 5 (FNDC5) secretion capacity of intramural, submucous, and subserous leiomyoma cells and compared them with the BMP-2 and FNDC5 activity of myometrium and endometrium cells.

Material and Methods: Ninety-seven women undergoing hysterectomy or myomectomy due to symptomatic leiomyomas were divided in three groups as submucous (SMM, n=26), intramural (IMM, n=34), and subserous (SSM, n=37). Leiomyoma, myometrium and endometrial tissue samples were isolated and homogenized. BMP-2 and irisin in leiomyoma, myometrium and endometrial samples were analysed with ELISA.

Results: Our results showed elevated FNDC5 levels in SMM group compared to IMM and SSM groups. But the difference failed to show statistical significance. BMP-2 levels of SMM, IMM, and SSM were the same. FNDC5 levels of endometrium and myometrium in SSM group were not different. Notwithstanding, endometrium of SSM group showed significantly higher BMP-2 levels than in the leiomyomas of same group. Endometrium of IMM group showed significantly higher BMP-2 levels than in the leiomyomas of same group. Likewise, endometrium of IMM group showed significantly higher FNDC5 levels than in the myometrium of same group. Endometrial and myometrial FNDC5 and BMP-2 levels of SMM group were the same. Significant and positive correlation was detected between FNDC5 and BMP-2 expression levels.

Conclusion: We showed, for the first time, subserous, submucous, and intramural leiomyoma cells express FNDC5 and BMP-2. Likewise endometrium and myometrium cells of leiomyoma patients also express FNDC5 and BMP-2. Our data on the expression patterns and functions of BMP-2 and FNDC5 in leiomyoma patients provide valuable information for further research and development of BMP-2 and FNDC5 as a novel treatment of infertility due to leiomyomas.

Keywords: Leiomyoma, myometrium, endometrium, BMP2, FNDC5

Table 1. Demographic and clinical findings of each group (Mean ± SD)

	IMM	SMM	SSM	Total
Age (years)	45.42±6.17	45.00±7.09	42.38±9.39	44.09±7.71
Gravidity	1.75±1.60	2.00±1.00	2.54±1.20	2.13±1.34
Parity	1.45±0.82	1.71±0.95	2.00±0.82	1.74±0.86
Pelvic pain	0.45±0.52	0.29±0.49	0.92±0.28	0.61±0.50
Bleeding	0.67±0.49	1.00±0.00	0.31±0.48	0.59±0.50
Menorrhagia	0.75±0.45	0.71±0.49	0.31±0.48	0.56±0.50
Infertility	0.08±0.29	0.00±0.00	0.15±0.38	0.09±0.30
Hyperplasia	0.00±0.00	0.00±0.00	0.15±0.38	0.11±0.32
Polyp	0.00±0.00	0.14±0.38	0.08±0.28	0.10±0.31

Table 2. Comparisons of FNDC 5 and BMP2 levels in leiomyomas, myometrium, and endometrium

	FNDC5	BMP2
1-SSM (Mean ± SD)	10.57±4.37	2524.84±853.34
2-SSE (Mean ± SD)	13.00±1.47	3258.35±458.19
3-SSMy (Mean ± SD)	12.25±2.81	3068.74±400.44
1 vs 2 1 vs 3 2 vs 3	0.178 0.375 0.818	0.020* 0.123 0.309
1-IMM (Mean ± SD)	11.70±2.88	2558.87±989.27
2-IME (Mean ± SD)	12.93±2.61	3366.14±345.35
3-IMMy (Mean ± SD)	11.57±2.20	3244.32±325.47
1 vs 2 1 vs 3 2 vs 3	0.053 0.718 0.045*	0.039* 0.082 0.375
1-SMM (Mean ± SD)	12.20±1.54	2527.57±990.13
2-SME (Mean ± SD)	12.05±1.34	2417.16±719.89
3-SMMy (Mean ± SD)	10.00±2.62	2400.84±803.06
1 vs 2 1 vs 3 2 vs 3	0.949 0.142 0.085	0.655 0.565 0.749
IMM vs SMM	0.964	0.821
SMM vs SSM	0.821	0.618
IMM vs SSM	0.818	0.670

*: $p<0.05$. SSM: Subserous leiomyoma, SSE: Endometrium of subserous leiomyoma, SSMy: Myometrium of subserous leiomyoma, SMM: Submucous leiomyoma, SME: Endometrium of submucous leiomyoma, IMM: Intramural leiomyoma, IME: Endometrium of intramural leiomyoma, IMMy: Myometrium of intramural leiomyoma

[OP-052]

The effect of vitamin-D level on clinical and metabolic findings in patients with Polycystic Ovary syndrome

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Objective: To determine the relationship between the level of vitamin D and clinical-metabolic findings in patients with Polycystic Ovary syndrome (PCOS).

Material and Methods: One hundred seventy nine patients between 18-40 years of age (mean age 27.09±5.82) who were diagnosed with PCOS according to Rotterdam diagnostic criteria between 2013 and 2018 were included in the study. Patients were divided into 3 groups according to their vitamin D (25OH-D3) levels (below 10, between 10-20, above 20). Fertility status, duration of infertility, body mass index (BMI), lipid profile levels, fasting blood glucose (FBG), insulin levels and insulin resistance (according to the method of homeostatic model assessment insulin resistance (HOMA-IR) were examined. The results were evaluated using the One-Way ANOVA test, the Kruskal-Wallis test and the chi-square test.

Results: Normal D-vitamin level was detected in only 5 patients from 179 patients. D-vitamin deficiency was observed in 97% of the cases. There was a statistically significant difference between the ages according to the D-vitamin level ($p<0.01$). The mean age of the group with a D-vitamin level above 20 was found to be significantly higher than the group with a D-vitamin level below 10 ($p=0.035$) and the group with a D-vitamin level between 10-20 ($p=0.006$). There was also a statistically significant difference between BMI levels according to D-vitamin level ($p<0.05$). The mean BMI of the group with D-vitamin level above 20 was significantly higher than the group with D-vitamin level between 10 and 20 ($p=0.049$). There was no statistical difference between HDL, LDL, total cholesterol levels, FBG, insulin levels, HOMA-IR levels, duration of infertility and fertility status according to D-vitamin level of the groups ($p>0.05$).

Conclusion: In our study, the majority of PCOS cases were found to have low levels of D-vitamin. However, it was observed that the D-vitamin level did not significantly affect the clinical and metabolic parameters.

Keywords: Polycystic Ovary syndrome, vitamin-D, metabolic findings

[OP-053]

The comparison of metabolic syndrome, vasomotor symptoms and bone mineral density between surgical and natural menpausal women

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Objective: Menopause is the permanent discontinuance of menstruation that develops after the loss of ovarian activity. Surgical retrieval of ovaries before the natural menopause is called surgical menopause. Lack of estrogen or fluctuation of estrogen leads to symptoms like hot flushing and night sweats. Osteoporosis is increased at postmenopausal women by the effect of estrogen deficiency and age. Metabolic syndrome is an endocrinopathy resulting from an underlying insulin resistance. This study aimed to evaluate the association between vasomotor symptoms, metabolic syndrome and bone mineral density (BMD) in surgical and natural menopausal women.

Material and Methods: We carried out a study on 35 natural menopausal and 35 surgical menopausal women who attended a routine health check–up at Marmara University School of Medicine Pendik Training and Research Hospital between August 2016-April 2017. Vasomotor symptoms were evaluated on the presence or absence of hot flushes and night sweats. Metabolic syndrome was defined by the consensus criteria of IDF and AHA/NHLBI. We compared demographic and metabolic features, metabolic syndrome, vasomotor symptoms and BMD between two groups.

Results: Vasomotor symptom prevelance between two groups is similar. Metabolic syndrome prevelance of the surgical menopausal group is statistically higher than the natural menopausal group. L1-L4 T score and BMD are statistically lower for the surgical menopausal group but femur neck and femur total T score and BMD are similar.

Conclusion: Metabolic syndrome prevelance and osteoporosis are higher in the surgical menopausal group but vasomotor symptom prevelance is similar between the two groups.

Keywords: Surgical and natural menopause, vasomotor symptom, bone mineral density, metabolic syndrome

[OP-054]

Examination of uterine and endometrial changes in premenopausal and postmenopausal patients using tamoxifen for breast cancer

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Objective: Today, the most common female cancer is breast cancer. Although it is more premenopausal, it can be seen after menopause. After breast cancer surgical treatment, tamoxifen is the most commonly used chemotherapy agent. Tamoxifen may have different genital effects in premenopausal and postmenopausal period. Our aim is to compare the effect of tamoxifen on patients with endometrial thickness, uterine volume and endometrial sampling in patients with premenopausal and postmenopausal period.

Material and Methods: In our research, patients who had surgery due to breast cancer between 2008 and 2016 in the Dr. Lütfi Kırdar Kartal Training and Research Hospital were evaluated retrospectively. Sociodemographic characteristics, ultrasound information and endometrial sampling were recorded in patient files. Patients were divided into 2 groups as postmenopause and premenopause. Subgroups were grouped as patients who used tamoxifen and did not use tamoxifen. Group 1; patients were treated with tamoxifen and Group 2; who did not receive adjuvant treatment after breast cancer surgery. Statistical study was performed with SPSS 17.0. Continuous values were compared with student test, and categorical values were compared with chi-square test. $p<0.05$ was considered significant.

Results: There were 96 patients (70 postmenopause, 26 premenopausal) according to the research criteria. The demographic, uterine ultrasound, and endometrial sampling rates of the patients in the postmenopause group are shown in Table 1. The uterine volume (67460.7±39091 mm^3 and 43379.7±29043 mm^3, $p=0.004$, respectively) and endometrial thickness (8.7±5.2, 5.4±3.2 mm, $p=0.003$, respectively) were found to be significantly higher in the group using tamoxifen. However, there was no statistically significant difference between the two groups in terms of endometrial sampling (10/39 and 1/20, $p=0.154$). The data for the premenopausal group are shown in Table 2. Table 2 shows no difference between groups in terms of uterine volume and endometrial thickness as in Table 1. There was no statistically significant difference when compared with endometrial sampling for patients using tamoxifen in both menopausal and premenopausal patients (10/39 and 3/10, $p=1.000$).

Conclusion: The use of tamoxifen due to breast cancer is associated with an increase in endometrial thickness and uterine volume during menopause, but not in premenopausal period. Our findings suggest that tamoxifen is more effective in the genital area during menopause. For this reason, we recommend that periodic controls be made more careful in patients who use tamoxifen during menopause.

Keywords: Breast neoplasms, tamoxifen, endometrium, uterus

Table 1. Demographic data, ultrasound examinations and endometrial sampling results of patients using and not using tamoxifen in postmenopausal women

	Using tamoxifen (n=49)	Not using tamoxifen (n=21)	p value
Age	46.6±6.8	51.1±9.8	0.096
Body mass index	28±4.8	28.2±5.3	0.823
Uterine volume (mm^3)	67460.7±39091	43379.7±29043	0.004
Endometrial thickness	8.7±5.2	5.4±3.2	0.003
Endometrial sampling patients	10/39	1/20	0.154

Table 2. Demographic data, ultrasound examinations and endometrial sampling results of patients using and not using tamoxifen in premenopausal women

	Using tamoxifen (n=13)	Not using tamoxifen (n=13)	p value
Age	42.2±5.9	31.9±4.5	0.051
Body mass index	26±3.2	26.3±3.1	0.979
Uterine volume (mm^3)	89309.5±68848	84233.2±35552	0.457
Endometrial thickness	8.5±3.9	7.9±4.9	0.828
Endometrial sampling patients	3/10	2/11	1.000

[OP-055]

Risk factors for the failure of ultrasound guided removal of retained intrauterine device

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Objective: In office, intrauterine device removal under ultrasound guidance is a safe and cost effective approach for the management of retained intrauterine devices. However, in some cases, this procedure may fail. We aimed to determine the risk factors that could be effective in the failure of ultrasound guided removal of retained intrauterine devices.

Material and Methods: The family planning unit database from January 2015 to December 2017 of our medical center was retrospectively reviewed; information regarding the patients who had undergone ultrasound guided removal of retained intrauterine devices with Alligator forceps by same gynecologyst due to failed removal by conventional methods was collected. The characteristics of the patients and retained intrauterine devices were analyzed.

Results: During the study period, IUD of 18 women (cases) could not be removed by ultrasound guidance and these women underwent hysteroscopic removal procedure. On the other hand, IUD of 72 (controls) women were removed succesfully. In univariate analysis, number of parity and vaginal delivery were significantly less in cases compared to controls, but number of cesarean section, presence of previous cesarean section, retroverted uterus, IUD embedded in myometrium, retained IUD part and IUD with no strings were significantly more in cases than in controls. However, in multivariate analysis presence of previous cesarean section, retained IUD part, IUD embedded in myometrium and IUD with no strings were independent risk factors for the failure of ultrasound guided removal of retained intrauterine device (Table 1).

Conclusion: Presence of previous cesarean section, retained IUD part, IUD embedded in myometrium and IUD with no strings are associated with failure of ultrasound guided removal of retained intrauterine device. Preprocedural identification of these factors could help surgeons to minimize or prevent the procedure failure.

Keywords: Intrauterine device, ultrasound, removal

Table 1. Multivariate analysis of factors for the failure of ultrasound guided removal of retained intrauterine devices

	OR	95% CI	p
Parity	0.19	0.01-5.72	0.34
No. of vaginay delivery	3.42	0.18-64.28	0.41
No. of cesarean section	9.70	0.17-51.67	0.27
Cesarean section	22.6	3.30-147.47	0.02
Retroverted uterus	0.69	0.03-14.96	0.81
Retained IUD part	0.04	0.01-1.32	0.04
IUD embedded in myometrium	0.01	0.01-0.51	0.03
IUD with no strings	0.05	0.01-0.84	0.04

OR: Odds ratio, CI: Confidence interval, IUD: Intrauterine device, $p<0.05$ is considered statistically significant

[OP-056]

Depression sensitivity in premenstrual dysphoric disorder patients

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Objective: To evaluate the sensitivityof depression in women with premenstrual dysphoric disorder (PMDD) in the presence of sociodemographic markers.

Material and Methods: This study was carried out on 30 healthy control subjects with 32 PMDD cases without using oral contraceptive between the ages of 18-35 who applied to Van Yüzüncü Yıl University Psychiatry and Gynecology Policlinic. The demographic characteristics (age, occupation, number of siblings, education, occupation, marital status), age of first menstruation, duration of menstruation, and presence of psychiatric disease and PMDD were compared in the other family members of both groups. Leiden Index of Depression Sensitivity (LEIDS) and Premenstrual Assessment Form (PAF) scale were applied to PMDB cases. LEIDS was applied to the cases in the control group. The obtained data were evaluated by SPSS-16, chi-square test and t-test in terms of statistical significance.

Results: The demographic characteristics of the cases examined; Mean age in the PMDD and healthy control group, number of siblings in the family, age of onset of first menstruation, duration of menstruation, marital status were similar (p>0.05). The mean scores in both groups were similar in terms of LEIDS (p>0.05). Psychiatric disease was present in 83.3% of PMD cases in the family, whereas this rate was 16.7% in the control group (p=0.014, chi-square: 5.995). While 75% of PMDD cases had PMDD in other family members, this rate was 25% in control group and statistically significant (p=0.001, chi-square: 11.182). In the PMDB group, the mean LEIDS scores and the increase in the mean PAF scores correlated (p<0.01). Comparing the mean PAF scores in PMDD grup, who family members had PMDD and who family members with non-PMD cases were similar (p=0.37). However, in these cases, the LEIDS mean score was significantly higher in the group with PMDD compared to the cases without PMDD in the other family members (p=0.026). In the control group, the mean LEIDS scores were similiar for the cases with and without PMDD (p=0.20).

Conclusion: There was no difference between the patients with PMDD and the control group in terms of sensitivity to depression. It was determined that the level of sensitivity to depression and the increase in the severity of PMDD were correlated. In addition, those who define PMDD in family with PMDD patients have more predisposition to depression than those who do not identify with PMDD in family. As a result; PMDD cases should be evaluated together with family members (with PMDD) and psychiatric support should be provided.

Keywords: Premenstrual dysphoric disorder, depression, depression sensitivity

[OP-057]

The usability of hematologic parameters in early diagnosis of adnexal torsion

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Objective: To investigate the hematologic parameters difference in patients with adnexal torsion (AT) and to determine its usability in early diagnosis.

Material and Methods: Demographic (age, gravidity, parity) and preoperative hematologic parameters (white blood cell (WBC) count, neutrophil count, lymphocyte count, hemoglobin (HB) value, mean corpuscular volume (MCV), platelet to lymphocyte ratio (PLT) count, mean platelet volume (MPV), platelet distribution width (PDW), plateteterit (PCT), neutrophil to lymphocyte ratio (NLR) and PLT of 62 patients who were diagnosed with AT (AT group) and 275 patients who had other benign ovarian diseases (Control group) were examined retrospectively at the Department of Obstetrics and Gynecology of Ankara Atatürk Training and Research Hospital of Ankara Yıldırım Beyazıt University between 2007-2015. Independent samples t test and Mann-Whitney U test were used to compare the groups. The parameters that had significant (p<0.05) were entered in the multivariate analysis. Logistic regression analysis with the enter method was performed for multivariate anaysis of independent predictors. ROC curves were used to determine cutoff serum MPV levels for selecting patients with AT. A p value 0.05 was considered statistically significant and odds ratios (OR) and 95% confidence intervals (CI) were determined.

Results: The data of patients overall and according to groups (AT group vs Control group) are summarizes in Table 1. The mean of age was higher in AT group than control group [30.161 (±9.850) vs 28.059 (±5.629)]; whereas, median of gravidity was higher in control group than AT group [2 (2) vs 1 (3)]. Differences were significant (p values were 0.024 and 0.001, respectively). On the other hand, both the mean of PLT count and PLR level were significantly higher in AT group than control group [265.112 (±64.685) vs 238.036 (±67.508) and 151.016 (±151.126) vs 134.118 (±70.334); p values were 0.004 and 0.001, respectively]. In contrast, mean of MPV level was higher in control group than AT group [9.572 (±1.281) vs 10.973 (±1.025)] and difference was significant (p=0.001). Binary regression analysis identified only low MPV level as independent risk factor for AT (OR: 3, 0.95 CI: 0.234 - 0.474; p=0.001). Receiver operating characteristic curve analysis revealed that the optimal cutoff value of MPV for discriminating between the groups was 10.35 fL. The sensitivity was 77.4% and the specificity was 74.2% (Figure 1).

Conclusion: There is very limited data about hematologic parameters and AT. The major finding of our study is that low level of MPV values was independently associated with AT than other benign ovarian diseases. MPV acts as a negative or positive acute phase reactant in different inflammatory conditions, as well as ischemic events such as acute myocardial infarction. In contrast to previous reports which conducted on acute trombotic events, the mean of MPV value was lower patients with AT and that 10.35 fL is the most suitable cutoff value for patient selection (sensitivity: 77.4%; specificity 74.2%). Finally, we did find that MPV is useful for the diagnosis AT. A large variety of case study series and prospective and retrospective researches should be carried out of for further clarification of the subject.

Keywords: Adnexa uteri, torsion abnormality, hematologic tests, mean platelet volüme

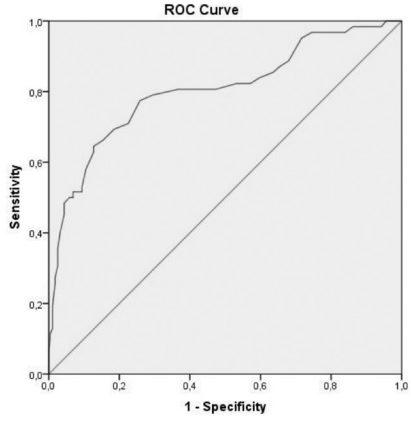


Figure 1. Receiver operating characteristic (ROC) curve for the ability of preoperative mean platelet volume level to predict adnexal torsion (area under the curve: 0.804, standard error: 0.035, p<0.001)

Table 1. The demographic and preoperative hematologic data of patients, overall and according to groups (i.e. AT group vs control group)

	Overall (n=322)	Adnexal torsion group (n=62, 18.4%)	Control group (n=275, 81.6%)	p value
Demographic characteristics				
Age (year), mean (±SD)	28.4 (±6.6)	30.161 (±9.850)	28.059 (±5.629)	0.024
Gravidity, median (IQR)	2 (2)	1 (3)	2 (2)	0.001
Parity, median (IQR)	1 (1)	1 (2)	1 (1)	0.057
Hematologic parameters				
WBC (K/uL) count, mean (±SD)	11.500 (±4.040)	10.569 (±3.465)	11.710 (±4.135)	0.054
Neutrophil (K/uL) count, mean (±SD)	8.852 (±4.300)	8.051 (±3.309)	9.019 (±5.639)	0.212
Lymphocyte (K/uL) count, mean (±SD)	2.057 (±1.139)	1.929 (±0.909)	2.085 (±1.183)	0.336
HB (gr/dL) value, mean (±SD)	12.122 (±4.183)	12.064 (±1.647)	12.136 (±4.567)	0.903
MCV (fL), mean (±SD)	85.191 (±7.954)	83.771 (±7.423)	85.512 (±8.047)	0.120
PLT (K/uL) count, mean (±SD)	243.017 (±67.723)	265.112 (±64.685)	238.036 (±67.508)	0.004
MPV (fL), mean (±SD)	10.715 (±1.204)	9.572 (±1.281)	10.973 (±1.025)	0.001
PDW (fL), mean (±SD)	14.112 (±10.936)	13.409 (±2.900)	14.268 (±12.010)	0.580
Plateletcrit	0.257 (±0.065)	0.252 (±0.067)	0.258 (±0.065)	0.564
NLR, (%)	5.541 (±5.423)	6.372 (±7.134)	5.369 (±4.995)	0.204
PLR, (%)	142.632 (±92.003)	151.016 (±151.126)	134.118 (±70.334)	0.001

[OP-058]

Benign metastatic leiomyomatosis after uterine artery embolization

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Benign metastasizing leiomyomas are thought to arise by means of circulation and peritoneal seeding. Altough it was used as a way of treatment, this case report shows that uterine artery embolization should be considered as a risk factor for benign metastasizing leiomyomatosis. Uterine leiomyomas, which are benign tumors of myometrium, are the most common gynecological neoplasms and estimated prevelance is 25% after the age of 30. Leiomyoma includes mitotically active, celluler and atypical leiomyoma variants. Cellular leiomyoma, are defined hypercellular variant of typical leiomyoma by the World Health Organization. Cellular leiomyoma accounts for 5% of leiomyomas. Benign metastasizing leiomyoma is extremely rare occuring which presents multiple leiomyomatous lesions in many tissues and organs especially in lungs. Several observations support the findings that benign metastatic leiomyomatosis may grow from lymphatic and hematological spread, coelomic metaplasia and intraperitoneal seeding. We report a case of a 41-year-old woman presented with menorrhagia and dull abdominal pain. Ultrasonography revealed a well-circumscribed hypervasculer mass, suggestive of an arterivenous malformation. We applied bilateral iliac artery embolisation which provided acute decrease in terms of size on mass. We determined bilateral pulmonary nodules in whole body tomography 5 months after embolisation. This is the second case report in literaure in which benign metastatic leiomyoma has appeared after uterine artery embolization, and the first case report which was demonstrated with celluler variant of leiomyoma, suggesting that uterine artery embolization as a risk factor of metastatic leiomyomatosis. Benign metastasizing leiomyomatosis is extremely rare and there is no consensus about the ways of formation. We presented a case report which may expose that a treatment modality for uterine leiomyomas may encourage metastasizing leiomyomatosis.

Keywords: Embolization, leiomyomatosis, leiomyom, metastazing leiomyoma



Figure 1. Positron emission tomography image of metastazing lesion

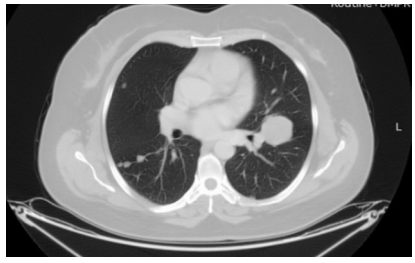


Figure 2. Computer tomography image of metastazing lesion

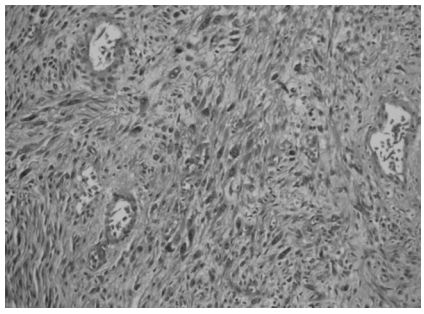


Figure 3. Computer tomography image of metastazing lesion

[OP-059]

Unilateral ovarian leiomyoma in a 14-year-old adolescent - A rare case

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Leiomyomas are benign mesenchymal tumors mostly seen in uterus. Uterin leiomyomas are one of the most common reasons of pelvic masses seen in women whereas ovarian leiomyomas are so rare. Ovarian leiomyomas are seen so rare that among all benign ovarian tumours it accounts only 0.5-1%. It's mostly seen between ages of 20-65 which premenopausal women consist 85% of them. They are mostly detected incidentally whereas they might present to a clinic with symptoms as abdominal pain and palpabl mass. Sometimes it can be difficult to diagnose the origin of the tumor with ultrasonography and even with MRI. In this case we wanted to present a 14 years old girl who was admitted to our clinic with a 6 months history of lower quadrant abdominal pain. The origin of the tumor was unknown and could not be revealed with ultrasonography nor MRI until diagnostic laparoscopy was performed. When we checked the literature there were only 5 cases of ovarian leiomyoma reported under age of 20 and mostly they had bilateral character. The youngest age reported was 13. Our case is the second youngest of all reported cases and it shows a unilateral character. The other important aspect of our case is that sometimes the imaging techniques can't be adequate for detecting the origin of tumor.

Keywords: Adolescent, ovarian leiomyoma, pelvic pain, unilateral

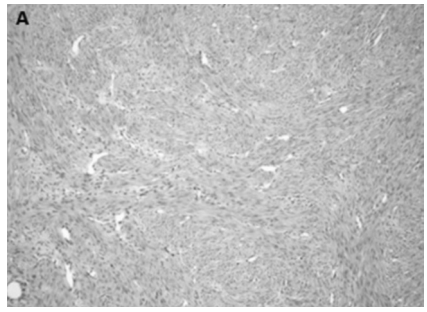


Figure 1. Histopathologic interlacing bundles of spindle shaped cells with no atypia nor mitotic activity, fascicles of smooth muscle cells (HEx100)

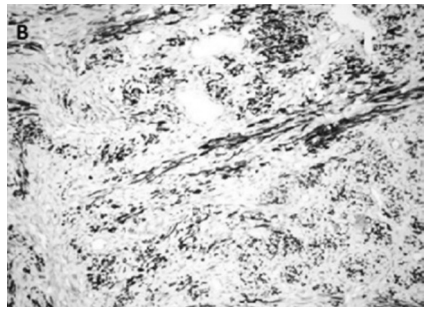


Figure 2. Desmin immunoexpression in neoplastic cells (x200)

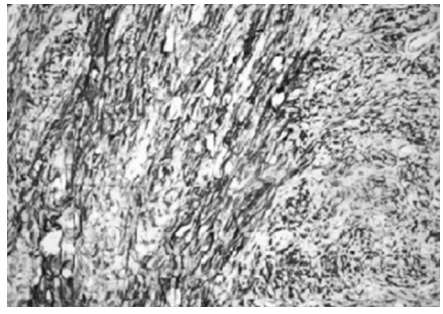
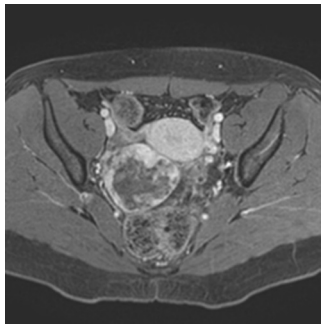


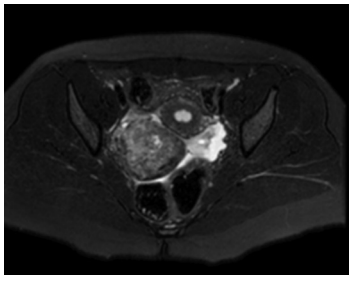
Figure 3. Marked immunoreactivity for smooth muscle actin (x200)



Pre-operative view
***Ovarian Leiomyoma per-operative view**



Pre-operative MR image 1



Pre-operative MR image 2

[OP-060]

A new questionnaire for aesthetic gynaecology: A self-appraisal questionnaire for feale genital cosmetic procedure demand (Q-GCP)

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The aims of this study were to develop a self-appraisal questionnaire for female genital cosmetic procedure demand (Q-FGCP), to use this for the genital appearance satisfaction in a general population sample, and to assess the relationship between total item score and the demand for cosmetic gynaecology procedure. This eleven-item questionnaire was intended to screen the women who need the cosmetic genital procedure. Antecedent ten-item revealed factor analysis relating to the aesthetic appearance of genitalia (item 1 to 8) and its impact on sexual pleasure (item 9 and 10), respectively. The eleventh item was the item questioning the participants how much they need a cosmetic gynaecology procedure. It was scored as 0 to 3 in accordance with the rating of willingness for the procedure. Zero was rated as no desire and 3 was rated as very strong desire. The scores 2 and 3 were rated as a strong need for the female cosmetic procedure. The questionnaire was completed by a general population sample of 100 women. A drawing of female genitalia with anatomic landmarks was given to the subjects while they were answering the questionnaire. Score analysis of the eleventh item was shown in Table 1. Correlation analysis was calculated between ten-item total score and score of the eleventh item. Demographic variables were also analysed for the desire of cosmetic procedure (Table 2). A total score above 19 was shown to be a significant factor in women's willing to have the genital cosmetic procedure (OR: 3.9, CI: 1.7-9.2, p=0.011) (see Table 3). This questionnaire seems to be a valuable screening tool for cosmetic gynaecology procedure requirement in women admitting to gynaecology outpatient clinics.

Keywords: Aesthetic gynaecology, questionnaire for cosmetic gynaecology, labiaplasty

Table 1.

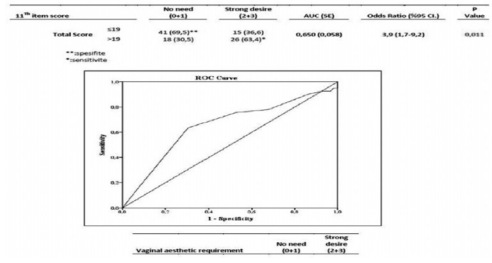
11th item score			
	0	51	51,0%
	1	8	8,0%
	2	37	37,0%
	3	4	4,0%
Need for genital cosmetic procedure			
	Little or No need	59	59,0%
	Strong need	41	41,0%

Table 2.

Correlation analysis	r	P Value
Total score	0,267	0,007
Age	-0,061	0,548
Height	0,010	0,919
Weight	0,078	0,440
BMI	0,047	0,645
Duration of marriage	0,067	0,557
Gravidity	0,014	0,891
Parity	0,012	0,904
Abortus	-0,040	0,693

Spearman's rho Test / r: Correlation Coefficient

Table 3.



[OP-061]

Dienogest for recurrences and pelvic pain associated with endometriosis

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To evaluate the effect of orally administered dienogest (DNG) for pelvic pain associated with endometriosis and recurrences. We analyzed the clinical data of 30 women with endometriosis who had been treated with 2 mg DNG once a a day for 12 months at a single center. We evaluated changes in endometriosis-associated

pain and recurrence rate after DNG administration. Endometriosis is a chronic disease characterized by the proliferation of endometrial tissue outside the uterine cavity, and it occurs in 6% to 10% of women of reproductive age and in 50% of infertile women. Despite the presence of many controversies regarding the mechanisms responsible for its pathogenesis and progression, it is widely accepted that endometriosis is an estrogen-dependent chronic inflammatory disease. Medical treatment regimens suppressing estrogen have been effective in reducing the pain and size of the lesions, although definitive treatment is not possible. Many new drugs have been tried for the treatment of endometriosis; however, it has been recommended that monophasic oral contraceptives or progestins should be regarded as the first-line agents since they seem to be effective in most endometriosis patients at a low cost. DNG is a hybrid progestin possessing characteristics both of 19-nortestosterone derivatives and progesterone derivatives. DNG is a derivative of 19-nortestosterone that combines the pharmacological properties of 19-nortestosterone derivatives with those of natural progesterone derivatives. Therefore, it shows a high selectivity for the progesteron receptors and a powerful progestinic effect on the endometrium. Furthermore, it has beneficial antiandrogenic properties, typical of the derivatives of progesteron, which cause minimal changes in serum lipid profile and carbohydrates metabolism. It has been suggested that the effectiveness of DNG in the treatment of endometriosis depends on its ability to create a hypoestrogenic and hyperprogestinic endocrine environment, which, initially, causes the decidualization of ectopic endometrial tissue. Subsequently, for prolonged treatments, DNG causes an atrophy of the lesions. It inhibits the estradiol level increase, through the inhibition of the growth of ovarian follicles. The average age of patients was 22 up to 48 years old and the duration of DNG medication was 12 months. The most common indications for DNG medication were to prevent postoperative recurrence (62.3%) and to treat patients with recurrent endometrioma after surgery (47.7%). Discontinuation rate was 10%. Frequent uterine bleeding was the major adverse event for discontinuation. Nausea, breast discomfort, headache, weight gain and epigatric pain were the another reasons The size range for endometriomas was 3-5 cm. The most common type of endometriosis was unılateral (79.7%), followed by bilateral (20.3). As a conclusion of administration DNG for endometriosis-associated pain especially clinically suspected deep infiltrated endometriosis and nonmenstrual pelvic pain. And sonographic recurrence during DNG use did not observed in our group.

Keywords: Dienogest, endometriosis-associated pain, recurrent endometrioma

[OP-062]

The role of serum caspase 3 levels in prediction of endometriosis severity

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Objective: To identify the role of serum caspase 3, annexin A2 (ANXA2) and Soluble Fas Ligand (sFasL) levels in prediction of endometriosis severity.

Material and Methods: The study was performed with 90 women who were candidates for laparoscopic surgery due to endometrioma or any other benign ovarian cysts on ultrasound examination, pelvic pain and infertility. The control group comprised 29 patients. The second comprised 29 patients with Stage 1-2 endometriosis and the third group comprised 30 patients with Stage 3-4 endometriosis.

Results: There was a significant difference between control and Stage 3-4 endometriosis groups and between Stage 1-2 and Stage 3-4 endometriosis groups in terms of caspase-3 levels (both, $p<0.001$). Significant differences were found between control and stage 3-4 endometriosis groups and between Stage 1-2 and Stage 3-4 endometriosis groups in terms of ANXA2 levels (p values= 0.007 and 0.002, respectively). There was significant difference between control and Stage 3-4 endometriosis groups and between Stage 1-2 and Stage 3-4 endometriosis groups in terms of sFasL levels (values: 0.022 and 0.044, respectively).

Conclusion: Serum caspase-3 levels may be a reliable predictor of endometriosis severity.

Keywords: Apoptosis, endometriosis, tissue adhesions, laparoscopic surgery

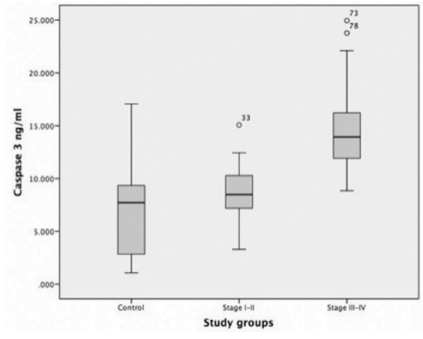


Figure 1.

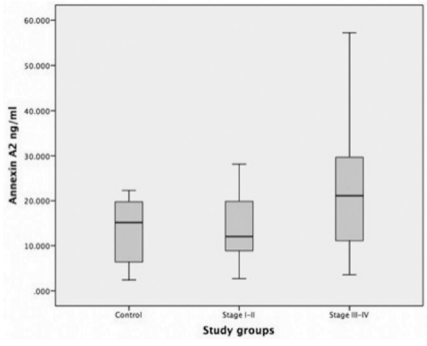


Figure 2.

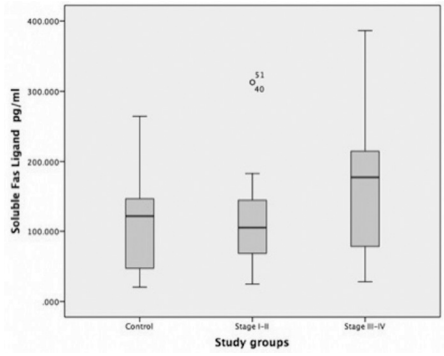


Figure 3.

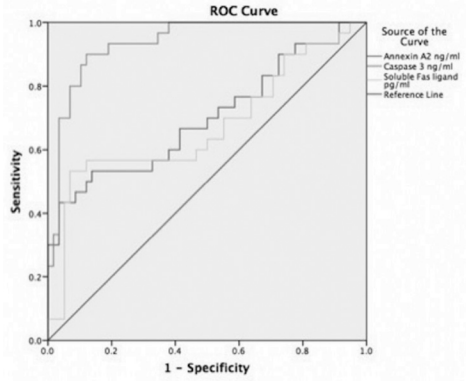


Figure 4.

Table 1. The surgery indications, surgical procedures and histopathology results of the study population

		Control group (n: 29)	Stage I-II (n: 29)	Stage III-IV(n: 30)
Surgery indication		n(%)	n(%)	n(%)
	Endometrioma	0	0	30(100%)
	Dermoid cyst	0	2(6.89%)	0
	Infertility	0	6(20.68%)	0
	Myoma	0	6(20.68%)	0
	Adnexal mass	29(100%)	15(51.72%)	0
Surgical procedures	Cystectomy	15(51.72)	9(3.03%)	18(60%)
	Oophorectomy	10(34.48%)	6(20.68%)	5(16.6%)
	Hyst+ Oophorectomy	4(13.79%)	0	7(23.33%)
	Diagnostic Laparoscopy	0	14(48.27%)	0
Histopathology results	Endometriosis	0	29(100%)	30(100%)
	Dermoid cyst	7(24.13%)	2(6.89%)	0
	Simple serous cyst	16(55.17%)	10(34.48%)	0
	Myoma	0	6(20.68%)	0
	Mucinous cyst	6(20.68%)	5(17.24%)	0

Table 2. Comparison of patients characteristics and serum Caspase 3, Annexin A2, Soluble Fas Ligand levels of study population

	Control group (n:29)	Stage I-II (n: 29)	Stage III-IV(n:30)	p value
	Mean±SD	Mean±SD	Mean±SD	
Age(years)	35.07±15	40.83±7.78	36.93±9.21	0.138
BMI(kg/m²)	25.82±4.32	25.39±3.17	24.11±3.48	0.186
Gravidy	1.51±1.37	1.86±1.27	2.06±1.22	0.264
Parity	1.31±1.16	1.75±1.12	1.86±1.07	0.138
Caspase 3 (ng/ml)	6.75±3.84	8.4±2.77	14.84±4.17[a,b]	<0.001
Annexin A2 (ng/ml)	13.4±6.43	14.21±7.36	21.53±12.12[c,d]	0.001
sFasL (pg/ml)	107.19±58.57	115.45±68.79	158.68±88.18[e,f]	0.018

a: Stage I-II vs Stage III-IV p<0.001
b: Control vs Stage III-IV p<0.001
c: Stage I-II vs Stage III-IV p:0.007
d: Control vs Stage III-IV p:0.002
e: Stage I-II vs Stage III-IV p:0.044
f: Control vs Stage III-IV p:0.02

[OP-063]

Clinical characteristics, recurrence risk and pattern of uterine leiomyoma variants

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Clinic of Obstetrics and Gynecology, University of Health Sciences, Ankara Etlik Zübeyde Hanım Women's Health Training and Research Hospital, Ankara, Turkey

Objective: Leiomyoma variants have similar symptoms and findings with typical leiomyomas. Differentiating these tumors from typical leiomyomas cannot be done with imaging methods. Diagnosis is made by histopathological examination of myomectomy or hysterectomy specimen. It is not known whether there is a discernible difference between these variants in terms of clinical, ultrasonographic and histopathological features. Management of the variants is also similar to typical leiomyomas. However, recurrent cases have been rarely reported in small studies and case reports. The aim of our study is to investigate the discriminative clinical features, recurrence risk and patterns of the leiomyoma variants.

Material and Methods: In this retrospective cohort study, medical records of 1243 patients with preoperative uterine leiomyoma diagnosis, between January 2009-January 2016, in University of Health Sciences, Ankara Etlik Zübeyde Hanım Women's Health Training and Research Hospital, were reviewed. A total of 43 patients were included in the study and divided in 3 groups as a result of postoperative histopathologic diagnosis: cellular leiomyoma group, mitotically active leiomyoma group, and atypical leiomyoma group. According to postoperative histopathological examination, cases with typical leiomyoma, STUMP, leiomyosarcoma and other gynecologic malignancies are excluded from the study. Clinical, ultrasonographic and histopathological findings of cases with cellular leiomyoma, mitotically active leiomyoma and atypical leiomyoma were compared. Postoperative medical records were reviewed for the recurrence development. Histopathologically confirmed cases after reoperation were accepted as recurrence.

Results: A total of the 43 patients included in the study, 24 (55.8%) had

cellular leiomyoma, 12 (27.9%) had mitotically active leiomyoma and 7 (16.3%) had atypical leiomyoma. The demographic characteristics of 3 groups were similar. The majority of patients were in the premenopausal period (93%). Cellular leiomyoma was detected in all postmenopausal patients. Abnormal uterine bleeding rate was lower in the cellular leiomyoma group than the other two groups (54.2% vs 100% and 91.7%, $p<0.05$). Although not statistically significant, the operation rate due to enlarging leiomyoma was higher in the cellular leiomyoma cases than the other two groups. Three patients (12.5%) in the cellular leiomyoma group were operated with an enlarging mass indication. There were no patients with enlarging leiomyomas in the other two groups. Ultrasonographic findings of the patients did not reveal any significant difference between the groups in terms of number of leiomyomas, largest leiomyoma size and localization. Postoperative follow-up records of 32 patients were obtained. The mean follow-up period of the patients was 29.8±19.2 months (range 3-72 months). A patient with mitotically active leiomyoma recurred 15 months after the first operation. The patient underwent tumoral debulking and histopathological examination result was leiomyosarcoma.

Conclusion: Abnormal uterine bleeding was less common and enlarging leiomyoma was more common in cellular leiomyoma group than the others. Although leiomyoma variants are mostly in the benign nature, a mitotically active leiomyoma case recurred as a leiomyosarcoma in our series. Though larger studies are needed to determine the risk factors for recurrence, more frequent examination of these patients may be appropriate in the early postoperative period.

Keywords: Atypical leiomyoma, cellular leiomyoma, mitotically active leiomyoma, leiomyoma variants, recurrence

[OP-064]

Change of ovarian function tests in patient with Celiac disease in childhood

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Objective: Celiac disease's (CD) first modern description was published in 1888 by Samuel Gee. CD is an enteropathy related to autoimmune diseases induced by gluten in genetically predisposed individuals. CD's prevalence is of 1% in Europe and United States. Its clinical presentation is extremely various and diagnosis relies on the detection of specific serum antibodies and on the demonstration of intestinal villous atrophy. Treatment relies on a life-long gluten free diet which prevents bone, autoimmune and malignant complications. CD common cause small bowel atrophy and mild non-atrophic alterations. CD increased prevelance is found in females, particularly during the fertile period. A delayed menarche, an early menopause, higher incidence of amenorrhea, infertility and spontaneous abortions are often observed in celiac patients. Females are completely asymptomatic for CD and the infertility and recurrent abortion may be the only clinical expression. Level of serum immunoglobulin A and tissue transglutaminase A can be used diagnosis of with noncompliance with gluten free diet (GFD) CD. Anti-müllerian hormone (AMH), antral follicle count (AFC), ovarian volume (OV), basement follicle stimulating hormone (FSH) are ovarian reserve testes. Level of prolactin, dehydroepiandrosterone sulphate (DHEAS), thyroid stimulating hormone (TSH), free thyroxine (fT4), estrogen, luteinizing hormone (LH) may effect ovarian cycle. The aim of study was to investigate change of level of the testes.

Material and Methods: The study includes in patient with CD who investigate ovarial function testes at Hitit University Hospital and girls admitted to gynecology clinics and investigate ovarial functions at Bakırköy Dr. Sadi Konuk Training and Research Hospital from January 2017 to March 2018.

Results: Thirty-five patients, 20 (57.1%) celiac patients and 15 (42.9%) healthy control subjects, were admitted to the study. The average age was 15.7±1.9, 17±0.25 year, in celiac patient and in control group children, respectively. Twelve (60%) of the patients with celiac disease had complete compliance with GFD and 8 (40%) noncompliance with GFD. There was no significant difference between the overvolumes of the celiac patients (right: 11.8±4.9 mL, left: 10.5±6.9 mL) and control group (11.7±7.8 mL, 10.5±6.2 mL, p=0.382, respectively); antral follicle count (right ovary 6.7+-2.2, 7.1+-3.9 left ovary 5.3+-1.9, 5.4+-2.3, p=0.382, p=0.681 respectively); serum AMH level (3.8±2.9 mg/mL, 3.5±1.7 ng/mL, respectively) (p=0.780). There was no correlation between serum AMH levels and age, height, weight and body mass index of the patients. There was no difference between complete compliance with GFD and noncompliance with GFD patients, overvolume, antral follicle counts and serum AMH levels. Levels of FSH, prolactin, DHEAS, TSH, fT4, estrogen, LH were normal in both groups. There were no correlations between all groups's serum tissue transglutaminase level and overvolume, antral follicle count and serum AMH levels.

Conclusion: Mechanism of a delayed menarche, an early menopause, higher incidence of amenorrhea, infertility and spontaneous abortions are unclear in patient with CD.

Keywords: Celiac disease, anti-müllerian hormone, antral follicle count

Table 1. Comparison of Celiac disease and control group

	Celiac disease (n=20)	Control (n=15)	p value
Age	15.7±1.9	17±0.25	0.45
Anti-müllerian hormone (AMH) mg/mL	3.8±2.9	3.5±1.7	0.78
Antral follicle count	Right ovary 6.7±2.2 Left ovary 5.3±1.9	Right ovary 7.1±3.8 Left ovary 5.4 ±2.3	Right ovary 0.84 Left ovary 0.9
Ovarian volume	Right ovary 11.8±4.9 Left ovary 10.5±6.9	Right ovary 11.7±7.8 Left ovary 10.5±6.2	Right ovary 0.38 Left ovary 0.68

[OP-066]

Clinical experience with an innovative frameless copper-releasing IUD (Gyn-CS®) designed specifically for intracesarean inserton to prevent expulsion –A 3-month randomized comparative trial

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Objective: The primary outcome of the study is to assess the expulsion rate of the newly developed frameless, anchored GyneFix® Cesarean Section (Gyn-CS®) IUD at 3 months' follow-up, compared to the TCu-380A IUD, when inserted immediately postplacental expulsion following caesarean section delivery.

Material and Methods: A randomized trial conducted at one hospital research center in İstanbul, Turkey. Eligible pregnant women, the majority planned for elective cesarean delivery, and the remaining emergency cesarean section cases, were randomized to intracesarean insertion of Gyn-CS or to TCu380A insertion. The study was approved by the ethics committee of the university.

Results: The study covers 140 insertions, 70 Gyn-CS and 70 TCu380A. Expulsion is significantly more common in the TCu380 A IUD group (11.4% vs 1.4%, p=0.039). The single Gyn-CS expulsion occurred after approximately 6 weeks and was attributed to improper anchoring. There were 4 removals for medical reasons in the Gyn-CS patients and 4 in the TCu380A patients, respectively. Also 4 non-medical removals occurred, 2 in each group. No serious adverse events (e.g., PID, perforation) were reported. At 3 months 61 Gyn-CS and 54 TCu380A IUDs were still in place.

Conclusion: The results of this immediate postplacental study in cesarean section patients suggest that the anchoring technique results in optimal retention of the Gyn-CS IUD. The frameless device is well accepted. Insertion was reported to be easy, safe and is quickly accomplished. In case of complaints, the IUD can be removed as early as 2 weeks in the office by pulling the tail. The visualized anchor allows the surgeon to check the position of the IUD at insertion and at follow-up which enhances provider confidence and assurance. Immediate postplacental insertion of conventional IUDs remains problematic due to the high rate of displacement and expulsion. The frameless, anchored IUD is effective in minimizing IUD displacement and expulsion. The simple and safe technique appears suitable for generalized use. The low expulsion rate observed with Gyn-CS could prevent a short interpregnancy interval preventing unintended pregnancy while promoting proper healing of the wound.

Keywords: Frameless, intrauterine device, contraception



Figure 1. 2D ultrasound at 7 weeks post-insertion showing the frameless IUD with anchor marker securely attached to fundus of the uterus. Anchor point at 0.8 mm from the serosa

Table 1. Events and rates at 3 month

Events	Gyn-CS	Tcu380A	p
Accidental pregnancy	0 (0%)	0 (0%)	1
Expulsion	1 (1.4%)	8 (11.4%)	0.039
Medical removals	4 (6%)	4 (6%)	1

[OP-067]

Serum heavy metal levels and copper/zinc ratio in endometrial polyps

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Objective: Endometrial polyps are one of the common reasons of abnormal uterine bleeding in gynecological patients and the frequency of diagnosis is increasing day by day. Risk factors for endometrial polyps include endogenous and exogenous estrogen excess and tamoxifen usage. Increasing heavy metal exposure due to industrialization, urbanization and increased air pollution causes several various health problems. Several studies show that heavy metals causes estrogenic effects in human body so named as metalloestrogens. In our study, we aimed to study serum heavy metal concentrations of copper, zinc, aluminum, lead, nickel and copper/zinc ratio (Cu/Zn ratio) in patients who has endometrial polyps.

Material and Methods: Forty patients with endometrial polyps diagnosed histopathologically and forty patients without endometrial polyp were included to the study who admitted to Clinic of Obstetrics and Gynecology, Zekai Tahir Burak Women's Health Practice and Research Center, Turkey between April 2017 and June 2017. Age, body mass index, education level, smoking behavior, drinking water choices, chronic diseases, intrauterine device usage history, fertility rates were noted for all patients. Blood levels of copper, zinc, aluminum, lead, nickel and Cu/Zn ratio were analyzed for both of the control and study groups.

Results: Demographic characteristics were similar between control

and study groups. Serum median levels of copper (114.00 vs 119.00) and lead (1.40 vs 1.95) were not statistically different between study and control groups (p>0.05). Serum median levels of zinc (0.75 vs 0.84), nickel (1.22 vs 1.86) and aluminum (8.30 vs 9.47) levels were statistically low in the study group compared to the control group (p<0.05). The Cu/Zn ratio (1.542 vs 1.295) was statistically high in the study group compared to controls (p=0.03).

Conclusion: Our results show that serum heavy metals concentrations are not high in endometrial polyp patients; however, there is a high Cu/Zn ratio because of the low levels of zinc in endometrial polyp patients. Copper and zinc as trace elements are necessary in small concentrations as essential constituents of biological enzyme systems. The major part of plasma copper is incorporated into ceruloplasmin, one of acute-phase reactant proteins and a multifunctional enzyme. Zinc and copper have been recognized to play an important role as cofactors of superoxide dismutase. The enzyme protects cellular components against free radical induced damage, which is considered to be of particular relevance to carcinogenesis. So, Cu/Zn ratio is an important biomarker of inflammatory process, oxidative stress and modulation of metabolic activity and cell proliferation which all can contribute in pathogenesis of endometrial polyps. We hope that further studies can identify causative relationship between high Cu/Zn ratio and endometrial polyps.

Keywords: Endometrial polyp, heavy metals, metalloestrogens, copper/zinc ratio

[OP-068]

Isthmocele is more than our prediction in clinical practice

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Objective: Isthmocele, as a long-term complication of cesarean section (CS) have increasingly interested steadily worldwide. However, not all women with this CS defect (CSD) have attempted to clinic symptomatically. We aimed to detect the prevalence of the isthmocele, potential risk factors for development and common clinical complaints associated with in non-pregnant women with a history of CS.

Material and Methods: One hundred fifty non-pregnant women who had given birth by CS at least 6 months before were randomly invited for participation in this cross-sectional study. All subject's age, body mass index, duration after CS, number of CS were recorded. Standardized scar parameters (residual myometrial thickness (RMT), depth and width of the triangular hypoechoic niche) were measured using transvaginal-ultrasonography (TVS). Symptoms were categorized into asymptomatic, postmenstrual spotting, menometrorrhagia, chronic pelvic pain, dysmenorrhea and infertility. The association of isthmocele and menstrual period was investigated. The relationship between the isthmocele development and CS reasons was evaluated.

Results: One hundred fifty collected women were assessed by TVS, of whom 17 (14.78%) were diagnosed with isthmocele. Women who had undergone recurrent CS tended to have more visible isthmocele than did those who had undergone only a single CS. The average of isthmocele depth is detected 6.006±0.7970 mm. CS was performed in 6 women (35.3%) electively, in 11 women (64.7%) at parturition in isthmocele presence group. The presence of isthmocele was frequently symptomatic, predominantly postmenstrual spotting. Women with isthmocele had significantly lower RMT values (5.57±0.60 mm vs 8.78±0.22 mm), than those without isthmocele. There was no correlation with age, BMI and isthmocele (p>0.05).

Conclusion: Incidence and prevalence of the CSD is more than predicted, gynecologists are not aware enough while examination their patients. The isthmocele, induces long term complications that morbidly effect women in their whole life even one CS performed, will be decreased together within reducing the primary CS rate in the near future.

Keywords: Isthmocele, uterine scar niche, caesarean

[OP-070]

The association between vitamin D and uterine prolapse

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Objective: The aim of this study is to investigate the lack of vitamin D in patients with uterine prolapse.

Material and Methods: The records of 40 patients were evaluated retrospectively in peri- and post-menopausal age group who were diagnosed with ICS Grade 3-4 uterine prolapse based on vaginal examination. The files of 40 patients with ICS Grade 0 in the peri- and post-menopausal period, whose 25(OH) vitamin D were measured at the same time with the patient group and who underwent surgery due to any gynecologic indication, were evaluated as control group. To increase the external validity and generalizability of our data, women were excluded if they had any medical conditions known to impair absorption or metabolism of vitamin D, or to be a major cause of fecal incontinence including stage ≥3 chronic kidney disease, chronic liver disease, gastric bypass, colovaginal fistula, and pelvic irradiation.

Results: The patient group had a lower level of 25(OH) vitamin D (9.5±14.0) than the control group (15.3±20.3); however, it did not reach statistical significance (p=0.140). Furthermore, 25(OH) vitamin D deficiency [25(OH) vitamin D level <20 ng/mL] was found in 95.0% of the patient group and 77.5% of the control group (p=0.024). A 25(OH) vitamin D level of <20 ng/mL was found to be the independent risk factor for uterine prolapse (OR: 5.8, 95% CI: 1.0-33.3).

Conclusion: Vitamin D deficiency may be a risk factor in the development of uterine prolapse.

Keywords: Pelvic organ prolapse, vitamin D, urinary incontinence, anal incontinence

[OP-071]

Effects of metformin versus myoinositol versus metformin myoinositol combined treatments on Polycystic Ovary syndrome: A retrospective study

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Objective: Polycystic Ovary syndrome (PCOS) is characterized by chronic anovulation and hyperandrogenism that results in reproductive and metabolic disorders. Several studies have reported that insulin resistance is the main underlying cause of PCOS. Life-style treatment and insulin sensitizers are commonly used in the management of women with insulin resistance and consequent hyperinsulinemia, to restore the normal endocrinological and clinical parameters. Metformin is considered one of the first approaches to this pathology but in recent years, as a nutritional support myoinositol usage is in increasing frequency. The aim of this retrospective data analysis was to evaluate the therapeutic efficacy of myoinositol (4 g myoinositol plus 400 mcg folic acid/day) versus metformin (on average 1700 mg/day) versus myoinositol plus metformin treatments in patients with PCOS.

Material and Methods: This retrospective study was conducted after the approval by the Clinical Research Ethics Committee of School of Medicine. Records about 3 months treatment (myoinositol or metformin or both insulin sensitizers) at 68 PCOS women in reproductive age were analyzed retrospectively. The patients showed symptoms of insulin resistance without diabetes mellitus. All patients were evaluated for anthropometric measurements. Hirsutism was assessed by modified Ferriman Gallwey score were calculated. Glucose levels at 0 min, and 120 min during an 75 g oral glucose tolerance test (OGTT), prolactin, thyroid stimulating hormone, high density lipoprotein, low density lipoprotein, triglyceride, total cholesterol, follicle stimulating hormone, luteinizing hormone, total testosterone, free testosterone, dehydroepiandrosterone sulfate (DHEAS) levels were measured and compared with the levels after 3 months of the treatment.

Results: All the groups showed a significant improvement ($p<0.05$) in menstrual cycle, body mass index (BMI), modified Ferriman Gallwey scores, glucose levels at 0 and 120 minutes of OGTT, total testosterone, free testosterone and DHEAS levels ($p<0.005$). No significant differences were found between the three groups for reducing BMI, modified Ferriman Gallwey scores, and androgen levels.

Conclusion: We concluded that myoinositol treatment in patients with insulin resistance was as successful as metformin treatment in terms of improvement in clinical and laboratory parameters. The use of myoinositol in combination with metformin alone does not provide much benefit from metformin or myoinositol alone treatments.

Keywords: Hirsutism, insulin resistance, metformin, myoinositol, Polycystic Ovary syndrome

[OP-072]

Effects of serum vitamin D levels on metabolic parameters in patients with Polycystic Ovary syndrome

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Objective: Insulin resistance (IR) and hyper insulinemia are main problems encountered in most of the women with PCOS. Vitamin D deficiency has been reported to have negative effects on insulin release and function of beta cells in pancreas. This study aimed to investigate the relationship between serum vitamin D levels on some metabolic parameters and other risk factors in patients with PCOS.

Material and Methods: After informed consents were obtained, forty-three women, between the ages of 18 and 45 with PCOS diagnosis according to the 2003. Rotterdam criteria were included in the study patients with a systemic disease that is not associated with PCOS and who have impaired absorption from the gastrointestinal tract are excluded from the study. Serum -hydroxy vitamin D [25(OH)D] (ng/dL), total testosterone, DHESO4, total cholesterol, LDL, HDL, triglyceride levels were recorded retrospectively. Patients' body mass indexes (BMI) were calculated. Homeostasis Model Assessment was used to measure IR. Patients were divided into three subgroups according to World Health Organization serum 25(OH)D limit values criteria, low (=deficiency, <10 ng/dL), inadequate (10-20 ng/dL) and normal (above 20 ng/dL), respectively. The SPSS version 22 was used. The correlation between vitamin D levels and metabolic/clinic parameters such as IR and BMI was calculated using spearman correlation coefficient. $P<0.05$ was considered as significant. Metabolic parameters were compared among groups of women with low, inadequate and normal vitamin D levels by using One-Way ANOVA test.

Results: The mean age of the patients was 20.9 (SD: 3.4) years. The mean of BMI was calculated as 24.3 (SD: 4.6) (kg/m^2). D vitamin deficiency was detected in 13 patients (30.2%), and vitamin D inadequate in 25 patients (58.1%). Only five (11.6%) patients had normal D vitamin levels. IR was detected in 13 (30.2%) patients. There was no significant correlation between serum 25(OH)D levels and metabolic parameters, IR and BMI. Triglyceride level was significantly higher in the group with insufficient vitamin D levels than in the group with normal vitamin D levels ($p=0.044$).

Conclusion: Some studies showed an association between hyper androgenemia and low 25(OH)D level. Vitamin D deficiency may be involved in the pathogenesis of hyper insulinemia, IR, and other metabolic problems in PCOS. Although patients were relatively young and low BMI was detected at a high rate. The low level of serum 25(OH)D in young patients with PCOS requires a careful examination of the levels of vitamin D in patients and the factors affecting them. Significant correlation between triglyceride levels and serum 25(OH) D levels suggests that PCOS patients should pay attention to their diet. Further studies are needed to investigate the relationship between serum vitamin D levels and metabolic parameters.

Keywords: Insulin resistance, Polycystic Ovary syndrome, vitamin D

[OP-073]

Comparison of serum vaspin levels in women with Polycystic Ovary syndrome according to body mass index

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Objective: Polycystic Ovary syndrome (PCOS) affecting 5-10% of women of reproductive age is thought to be commonly seen endocrine disorder. PCOS is characterized clinically by irregular menstruation, due to oligo-anovulation, signs of hyperandrogenism including hirsutism, acne and hair loss, insulin resistance causing glucose intolerance or diabetes mellitus, and dyslipidemia which results in a higher risk of developing cardiovascular disease. Another important clinical feature of this syndrome is obesity, particularly visceral obesity and 40-85% of patients with PCOS are overweight or obese. Vaspin, a novel insulin-sensitizing adipokin secreted from the visceral adipose tissue, plays an important role in endogenous glucose regulation by inhibiting serine protease. Recent studies showed that elevated serum vaspin levels are associated with obesity, impaired insulin sensitivity and type 2 diabetes in humans. We designed this study to investigate that serum vaspin level changes in nonobese PCOS patients as well as overweight and obese PCOS patients comparing to nonobese, overweight and obese control groups.

Material and Methods: A prospective cross-sectional case control study was carried out at the our clinic with 140 women between January 2014 and January 2016. The women with PCOS were diagnosed by Rotterdam 2003 criteria (menstrual disturbances: oligomenorrhea or amenorrhea, clinical or biochemical hyperandrogenism and sonographic findings of polycystic ovaries). For all study patients; pelvic ultrasound scans were performed. if there were 12 or more follicles of 2-9 mm in diameter in each ovary and/or an enlarged ovary (>10 cm^3), polycystic ovaries was diagnosed. If the Ferriman and Gallwey score was 8 or higher; hirsutism was considered present. Body mass index (BMI) was expressed as weight per height squared (kg/m^2). Overweight is defined as a BMI of 25 to 29.9 kg/m^2, obesity is defined as a BMI of >30 kg/m^2. The control group was healthy on the basis of medical history, pelvic and physical examination, complete blood count and blood chemistry. They had regular menses with ovulatory cycles, normal androgen levels, and a baseline pelvic ultrasound scan showing normal ovaries.

Results: All results shown in the Table 1.

Conclusion: It is known that vaspin is secreted from the fat tissue, as the fat tissue increases, the level of the vaspin is expected to increas and it is supported by human and animal studies. But in our study we determine that serum vaspin levels were significantly higher in women with PCOS independently from BMI. This may be a limitation of our work. We did not use special devices that measure the amount of fat tissue, we only used BMI. However, in all PCOS groups, vaspin values were higher than the control group. All these data support that vaspin can be elevated by a different mechanism in patients with PCOS and vaspin may be an important marker that can be used to diagnose PCOS.

Keywords: Policystic Ovary syndrome, vaspin, body mass index

Table 1.

	BMI: 18-24.9			BMI: 25-29.9			BMI: ≥30		
	Control (n=28) Min-Max Mean±SD/Median)	PCOS (n=28) Min-Max Mean±SD/Median)	p	Control (n=18) Min-Max Mean±SD/Median)	PCOS (n=26) Min-Max Mean±SD/Median)	p	Control (n=16) Min-Max Mean±SD/Median)	PCOS (n=24) Min-Max Mean±SD/Median)	p
Age (years)	18-32 28.2±3.8 (28)	18-32 21.6±3.7 (20)	*0.001**	18-39 27.7±5.6 (27)	19-36 23.8±3.8 (23)	*0.008**	21-38 29.4±5.2 (29.5)	17-33 24.54±5.04 (24)	*0.006**
BMI (kg/m2)	18.1-24.6 20.6±1.6 (20.7)	18.4-24.8 21.7±1.7 (21.5)	*0.026*	25.4-28.5 27.1±1.1 (27.5)	25.3-29.7 27.3±1.3 (27.4)	*0.567	30.1-39.1 33.1±2.7 (32.7)	30.1-46.9 34.7±4.9 (33)	*0.195
Waist-to-hip ratio	0.7-0.8 0.7±0.1 (0.7)	0.7-0.8 0.8±0.1 (0.8)	*0.001**	0.7-0.8 0.8±0.1(0.8)	0.7-0.9 0.8±0.1 (0.8)	*0.003**	0.7-0.9 0.8±0.1 (0.8)	0.7-0.9 0.8±0.1 (0.8)	*0.941
Fasting insulin level (µIU/mL)	5.7-22 10.7±3 (9.5)	1.2-71 20.2±16.3 (15.6)	*0.006**	5.7-23.4 15.6±4.6 (17.3)	2.4-58.5 24.1±14.9 (17.6)	*0.***	9.6-86 27.5±20.2 (22.6)	9.9-157.3 40.2±30.9 (31.1)	*0.143
Fasting glucose level (mg/dl)	67-102 85.4±10.1 (84.5)	63-109 88.5±10.6 (87)	*0.245	71-103 92±9.4 (95.5)	69-111 91.9±10.7 (91.5)	*0.981	76-166 98.2±18.8 (98.5)	67-114 95.4±13.3 (96)	*0.827
HOMA-IR	1.1-5.3 2.3±1 (2)	0.3-17.3 4.6±4.2 (3.5)	*0.010*	1.1-5 3.6±1.2 (3.9)	0.6-15.4 5.6±3.9 (4.2)	*0.252	1.8-18.5 6.6±4.9 (5.5)	1.9-31.5 9.7±7.1 (7.3)	*0.214
LH/FSH ratio	0.5-1.1 0.8±0.2 (0.8)	0.8-4.7 1.8±1 (1.3)	*0.001**	0.4-0.9 0.8±0.1 (0.8)	1-3.9 2±0.9(1.7)	*0.001**	0.4-0.9 0.7±0.1 (0.7)	1.1-4.6 1.9±0.8 (1.9)	*0.001**
Ferriman-Gallwey score	3-15 7.2±2.7 (7)	2-14 9.7±2.7 (9)	*0.001**	3-12 7.6±2.2 (8)	6-17 10.6±3.1 (10.5)	*0.001**	3-17 8.4±3.7 (7.5)	3-21 11.5±4.2 (12.5)	*0.019*
VASPIN (ng/ml)	0.1-3.9 1.4±0.8 (1.4)	0.6-7.5 3.4±1.7 (3.2)	*0.001**	0.3-2.3 1.6±0.8 (1.5)	0.7-7 3.1±1.3 (3)	*0.001**	0.1-3 1.8±0.1 (2)	0.5-7.2 3.4±1.5 (3.2)	*0.001**

[OP-074]

Contraception counseling project for women attending a gynecology outpatient clinic in east of Turkey: Does it work?

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Objective: Contraception counseling is crucial in gynecology practice even in patients who do not apply for contraception counseling. However, in the outpatient clinic, there is usually not enough time for contraception counseling. Some patients especially express other complaints, which are more important to them or the physicians are more concentrated on the patients' complaints and advice on contraception is usually forgotten. Our goal in this the Contraception Counseling Project is to screen out the women who need contraception counseling before they enter the physicians' room by a contraception counseling form that they fill out in the waiting room and evaluate their results and the choices that the patients make according to their demographic variables. This project was carried out in a population that was thought to have less information about contraception.

Material and Methods: Between September 2017 and February 2018, all of the reproductive-age women over the age of 18 who applied to the gynecology clinic were given the Contraception Counseling Project Form prepared in our clinic and consisted of 15 questions, which evaluated the patients' characteristics, which are important for contraception choice for the physician. Statistical analysis was performed with the computer program IBM Statistical Package for the Social Sciences (SPSS) version 21.0.

Results: The total number of forms filled is 500.436 forms (87.2%) were valid, 64 forms were considered as invalid because they were incomplete or inconsistent, and 40 patients were found to be postmenopausal or sexually inactive. The mean age of the patients who filled out the valid forms was 32.6±7.9. The education level of the patients is shown in Figure 1. 50% of the patients are primary school graduates, 14.8% are middle school graduates, 10.4% are high school graduates, 8% are university graduates and 16.8% were illiterate. 4.8% of the patients are planning pregnancy. The resources that patients receive information about contraception are shown in Figure

2. 13.3% of patients had previously used oral contraceptives. 93.1% of those using oral contraceptives were used for contraceptive purposes. The duration of oral contraceptive use is shown in Figure 3 and the reasons for quitting are shown in Figure 4. Contraceptive methods preferred by patients are summarized in Figure 5. 9.3% use condoms. 29.5% of the patients who did not have a pregnancy plan but who did not apply contraception did not use contraception because of the difficulty of use, 21.3% for the concern of side effect, 45.2% for active sexual intercourse and 4% for other reasons. In addition, thanks to this project (Figure 6), 21 of the 80 women using the coital interruption method as a contraceptive method accepted the condom, 29 received intrauterine device, 1 received lng-IUD, 11 used COCs.

Conclusion: The fact that only 64 patient forms of 500 patients are invalid indicates that the contraceptive form can be effectively used by patients and physicians and facilitates contraceptive counseling. Women receive consultation on contraception at the highest level from doctors. There are still a large number of women who are not planning pregnancy but who do not practice contraception, especially due to the concern of side effects. Giving effective contraceptive counseling to these women can discourage adverse side effects, especially related to oral contraceptives.

Keywords: Contraception, counseling, gynecology outpatient clinic

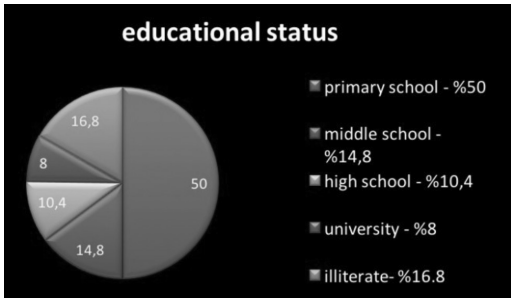


Figure 1.

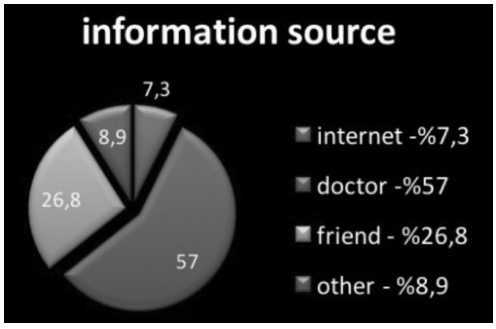


Figure 2.

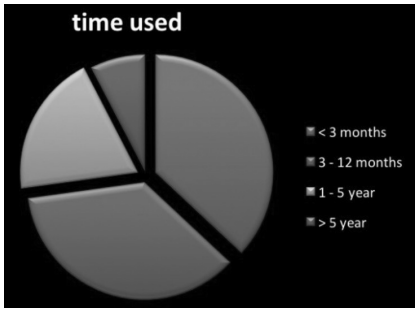


Figure 3.

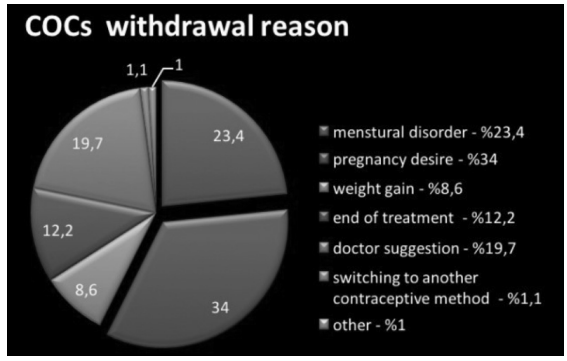


Figure 4.

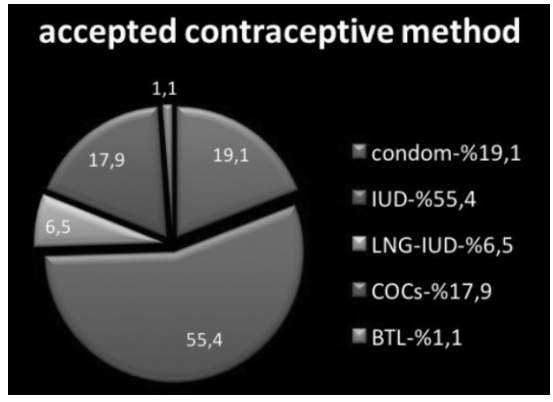


Figure 5.

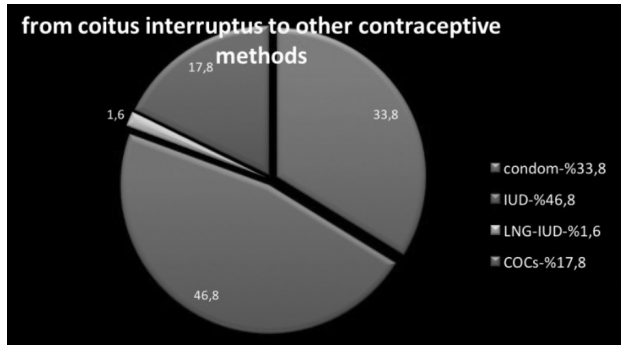


Figure 6.

[OP-075]

Does obesity affect preptin and amylin levels in patients with Polycystic Ovary syndrome?

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Objective: This study aims to evaluate the serum amylin and preptin levels, and compare the conditions of obesity and insulin resistance

with the serum amylin and preptin levels in patients with Polycystic Ovary syndrome (PCOS).

Material and Methods: This study was performed with a patient group consisting of 40 PCOS patients and a control group of 40 healthy individuals matched with body mass index (BMI). The PCOS diagnosis was made in accordance with the recommendations of the Rotterdam Consensus. Transpubic and transvaginal ultrasonography (US) examinations were performed for all patients. The demographic characteristics of the patients [age, body mass index (BMI), number of births, menstrual features, and ovary and endometrium characteristics] were examined and Homeostatic Model Assessment-Insulin Resistance (HOMA-IR) level, as the insulin resistance index, and high sensitive C-reactive protein (hsCRP), amylin, and preptin levels were measured.

Results: The present study includes a total of 80 females, including 40 PCOS patients and 40 normal female patients with similar age and BMI values. There was no difference between the groups in terms of BMI and waist circumference measurements (p=1, p=0.372, respectively). There was no difference between groups in terms of HOMA-IR score, which is considered to be the marker of insulin resistance (p=0.849). Patients diagnosed with PCOS were found to be young (p=0.008) and had lower levels of amylin (<0.001). Patients diagnosed with PCOS were found to have larger ovary volumes (p=0.001), higher FG scores (p=0.001), and testosterone (free and total) levels (0.049 and 0.021, respectively). However, there was no significant difference between the groups in terms of preptin, DHEAS, hsCRP, E2, prolactin, FSH (3rd day), LH and prolactin levels (p>0.05). The overweight patients diagnosed with PCOS (BMI >25 kg/m^2) had higher FG scores (p<0.001) and ovarian volumes (p=0.012) and lower amylin levels (p<0.001) than those without PCOS. There was no relationship between PCOS and the preptin levels in overweight patients (p>0.05). There was no significant difference in the BMI, amylin, and preptin values whereas patients with BMI >25 kg/m^2 had higher hsCRP (p=0.003) and HOMA-IR (p=0.003) values when patients with PCOS were compared according to BMI results (<25 kg/m^2 vs ≥25 kg/m^2).

Conclusion: It was determined that early amylin levels were lower and that preptin levels did not change in young patients diagnosed with PCOS. It was seen that the hsCRP and HOMA-IR markers may be superior to amylin and preptin in the early evaluation of insulin resistance in overweight PCOS patients. Prospective studies performed with larger patient and control groups are needed on this subject.

Keywords: Amylin, Polycystic Ovary syndrome, preptin

[OP-076]

Ultrasound predictors of candidates for segmental resection in pregnants with placenta accreata

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Objective: We aimed to assess the predictive values of individual sonographic findings of abnormal placentation to determine the candidates for segmental resection.

Material and Methods: This was a retrospective review of 43 pregnancies with at least 1 prior cesarean delivery who received an ultrasound diagnosis of placenta previa or low-lying placenta with suspected abnormal placentation in the third trimester at our institution from 2015 through 2017. Sonographic images were reviewed by an investigator blinded to pregnancy outcome. Sonographic parameters were assessed including loss of retroplacental clear zone, irregularity and width of uterine-bladder interface, smallest myometrial thickness, presence of lacunar spaces, and bridging vessels. Diagnosis of placental invasion was based on histologic confirmation. Parameters were analyzed to predict candidates for conservative approach.

Results: There were 27 cases with cesarean hysterectomy where as conservative approach was successful in 16 of the cases. Numbers of transfusions of packed red bloo cells (2.6 vs 1.7), fresh frozen plasma (2.3 vs 0.9) and mean smallest retroplacental myometrial thickness (1.3 vs 2.1 mm) were significantly different between the two groups (p<0.05). Smallest retroplacental myometrial thickness was a significant predictor for the cases appropriate for successful conservative approach (AUC: 0.911, p<0.001), optimal cut off value was obtained at 1.6 mm with 94% sensitivity and 85% specificity.

Conclusion: Our data showed that among some sonographic findings of abnormal placentation, smallest myometrial thickness was a significant predictor to determine candidates for conservative approach.

Keywords: Accreta, invasion, ultrasound

Table 1. Comparison summary of groups with and without conservative approach

	Groups	n	Mean	Standard deviation	p value
Age (years)	Hysterectomy	27	35.5	4.7	>0.05
	Segnemtal resection	16	34.1	6.5	
Gravidity	Hysterectomy	27	3.7	1.2	>0.05
	Segnemtal resection	16	4.1	2.3	
# of red blood cell packs transfusions	Hysterectomy	27	2.6	1.4	<0.05
	Segnemtal resection	16	1.7	1.2	
Retroplacental myometrial thickness (mm)	Hysterectomy	27	1.3	0.3	<0.05
	Segnemtal resection	16	2.1	0.5	

[OP-077]

Depression scale among patients with Polycystic Ovary syndrome

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Objective: Polycystic Ovarian syndrome (PCOS) is the most common endocrine disorder of women at their reproductive age and it is related with the increased risk of psychological disorders. The aim of this study is to detect whether depression scores of women with PCOS are related with other features of their condition and their socio-demographic measures or not.

Material and Methods: This is a descriptive case-control study held in our clinic between July and December 2017. Six hundred and three women were diagnosed with PCOS within this period of time and 238 of them agreed to participate the study. The Beck Depression scoring was done to these patients and their anthropometric measures were noted besides their socio-demographic features.

Results: The mean age of patients was 24 (SD: 5.5) and the mean score for Beck Depression inventory was 16 (SD: 9.7) which indicates mild depression. The patients then were divided into four groups according to their beck score as follows normal (0-9), mild (10-19), moderate (19-29) and severe (30-63) depression. 69 patients were normal, 82 had mild, 65 had moderate and 22 had severe depression. There were no remarkable differences among these groups in terms of education level, occupation, habits, hirsutism score or BMI. There was a slight correlation between higher beck scores and being married. Also women with children had 2-3 fold higher risk of having moderate or severe depression.

Conclusion: We have detected that more than two third of women with PCOS are under a risk of having mild to severe depression. Although PCOS increases the risk for depression, this is still a high proportion for women with this condition compared to the normal population. This is a very comprehensive study of women with PCOS which many different factors were questioned. Nevertheless depression is a multidimensional disease, PCOS seems to exist as a solid predetermining factor for this condition, regardless it's clinical appearance.

Keywords: Beck, depression, inventory, ovary, polycystic

[OP-078]

Local treatment of chronic pelvic pain; procaine and traumeel injections

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Chronic pelvic pain makes up an important percentage of people who consult outpatient clinics. We can see quite few reasons while we search for its etiology and similarly, treatment modalities can also differ. Our aim in our research is to find a treatment modality which can be applied in the out-patient clinics for chronic pelvic pain. We have identified 46 patients in our outpatient clinics who were diagnosed with chronic pelvic pain after taking their medical history and an examination including transvaginal ultrasonography. All patients were informed vividly and taken consent. Abdominal and pelvic trigger points of the patients were determined. An ampule of procaine and an ampule of traumeel was added up and applied to the trigger points. This mixture is extensively used in clinics in Germany. Twenty nine of the patients were on painkillers. Eleven patients who were diagnosed with endometriosis were using the same combined oral contraceptive pill. Six of the patients were not receiving any medical treatment. Before the first round of treatment, patients were asked to fill in EQ-5D-3L Quality of Life Questionnaire. Their first appearance VAS pain scores were recorded. All of the patients were called back for control every 10 days, examined and given injections repeatedly. Patients who had a mean of 6 points in the Visual Analogue Score had their results decreased to mean of 2 points after the 6th session. Their VAS pain score values did not change at the end of their 6th month control. We found out that their EQ-5D-3L Quality of Life Questionnaire scores were increased from mean of 25 to 75 points. Procaine is an amino group local anesthetic with analgesic, anti inflammatory, antibacterial and antimycotic effects. Higher effects can be seen for inflammation and pain on tissues with poor circulation. Traumeel is an anti inflammatory natural plant extract which is used notably in rheumatic diseases on trigger points in order to reduce pain. There isn't a known side effect of traumeel. Both agents do not have allergic side effects. Nerve stimulation can be achieved and muscle contractures can be corrected by these injections. Also, anti inflammatory effect is thrived. Sympathetic and parasympathetic system regulation can be imposed by autonomic nervous system and few of the pain pathways can be blocked with this treatment. We have been practising trigger point injections in rheumatic diseases and physiotherapy with these two agents with no known significant side effects. Chronic pelvic pain is still an important reason for consulting gynecologic outpatient clinics and it is a long, tiring disease. These local injections treatments can help us reach high patient satisfaction with low cost, high efficiency and improved life quality in such a short time period.

Keywords: Antiinflammatory, chronic pelvic pain, procaine, traumeel, trigger point

[OP-079]

TWEAK and monocyte to HDL ratio as a predictor of Metabolic syndrome in patients with Polycystic Ovary syndrome

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Objective: We aimed to analyze serum TWEAK levels and monocyte/HDL ratio in Polycystic Ovary syndrome (PCOS) and their predictivity for Metabolic syndrome (MS) in PCOS.

Material and Methods: We included 71 women with PCOS and 40 healthy controls without any cardiovascular risk factors in this prospective study. Patient group was classified as MS positive (n=34) and negative (n=37).

Results: Study group had higher monocyte/HDL ratio and TWEAK levels (9.59±2.82 vs 8.2±2.46, p=0.007 and 1085.54±780.95 vs 694.88±369.67 ng/mL, p=0.009). Monocyte/HDL ratio and TWEAK levels were higher in MS positive group (10.47±2.81 vs 8.77±2.61, p=0.01 and 1417.59±921.52 vs 780.41±455.67, p=0.009). In multivariate regression analysis, monocyte/HDL ratio (>9.9, OR: 3.42, 95% CI: 1.41-5.78, p=0.008) and TWEAK (>846.5 ng/mL, OR: 5.49, 95% CI: 3.14-7.59, p=0.002) were found to be independent predictors of MS in study group. Discriminative value of monocyte/HDL ratio for MS in study group was evaluated by receiver operating curve. Area under curve for monocyte/HDL ratio was 0.669 with a sensitivity of 70.3% and specifity of 67.7%, cut-off value was >9.9. Receiver operating curve for TWEAK at >846.5 pg/mL threshold to diagnose MS in study group was performed and area under the curve was 0.769 with a sensitivity of 73% and specifity of 72%.

Conclusion: TWEAK and monocyte/HDL ratio may be promising in predicting MS at early stages in PCOS to prevent future cardiovascular diseases by modyfying life-style or giving pharmacotheraphy.

Keywords: Monocyte to HDL cholesterol ratio, metabolic syndrome, Polycystic Ovary syndrome, TWEAK

[OP-080]

Should we screen for vitamin D deficiency in Turkish women?

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Objective: Vitamin D deficiency is a global health problem. Over a billion people worldwide are vitamin D deficient or insufficient. The aim of the study was to evaluate the association of plasma levels of 25-hydroxyvitamin D [25(OH)D] in our population.

Material and Methods: We collected data from 44.592 women who were outpatients aged 18-65 years who visited Memorial Hospital from January 2011 to December 2017. Serum 25(OH)D levels were measured by ECLIA electrochemiluminescent immunoassay and if the levels of 25(OH)D were less than 20 ng/mL, between 20 and 29 ng/mL and more than 30 ng/mL, they were considered as indicating deficient, insufficient and normal 25(OH)D concentrations, respectively. Data analysis was performed by using Statistical Package for Social Sciences (SPSS) version 11.5 software (SPSS Inc., Chicago, IL, United States). Descriptive statistical methods (mean, standard deviation and percentiles) and chi-square test were used to evaluate the data.

Results: The mean age was 39.5±11.3 and the mean level of serum 25(OH)D was 20.1±13.7 ng/mL. The highest mean level of serum 25(OH)D was found at the 36-50 years stage (21±13.9 ng/mL) and the lowest at the 18-35 years stage (19.4±12.6 ng/mL) and the mean level of serum 25(OH)D was 20.2±15.3 ng/mL at the 51-65 years stage (p<0.001). The prevalence of vitamin D deficiency was 57.7% and the prevalence of vitamin D sufficiency was 22.4%. The distribution of the prevalence of vitamin D deficiency and sufficiency according to age groups is shown in Table 1. Also the prevalence of vitamin D deficiency during 2014 was 66.1% but decreased to 49.4% in 2017 (Table 2).

Conclusion: The prevalence of vitamin D deficiency in Turkey is very high, all of these groups should be screened and treated as appropriate.

Keywords: Prevalence, screening, vitamin D deficiency, 25-hydroxy vitamin D

Table 1.

			[25(OH)D] levels		
			≥30 ng/ml	20-29,9 ng/ml	<20 ng/ml
Age	51-65	N	1927	1672	5226
		%	21,8%	18,9%	59,2%
	36-50	N	3637	3906	9067
		%	21,9%	23,5%	54,6%
	18-35	N	3304	4395	11458
		%	17,2%	22,9%	59,8%
Total		N	8868	9973	25751
		%	19,9%	22,4%	57,7%

Table 2.

			[25(OH)D] levels		
			≥30 ng/ml	20-29,9 ng/ml	<20 ng/ml
Years	2011	N	107	191	424
		%	14,8%	26,5%	58,7%
	2012	N	459	700	1521
		%	17,1%	26,1%	56,8%
	2013	N	891	1310	3942
		%	14,5%	21,3%	64,2%
	2014	N	1029	1373	4685
		%	14,5%	19,4%	66,1%
	2015	N	1454	1624	4911
		%	18,2%	20,3%	61,5%
	2016	N	2134	2113	4946
		%	23,2%	23,0%	53,8%
	2017	N	2794	2662	5322
		%	25,9%	24,7%	49,4%
Total		N	8868	9973	25751
		%	19,9%	22,4%	57,7%

[OP-081]

The effect of myoinositol on ovarian blood flows in women with Polycystic Ovary syndrome

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Objective: To evaluate whether myoinositol therapy has any effects on ovarian stromal blood flow by using pulsed and color Doppler at the of 3 months follow-up period in women with Polycystic Ovary syndrome (PCOS). Also, to compare the changes in ovarian blood flows in patients using oral contraceptive pill (OCP) and myoinositol and folic acid (MYO) treatment.

Material and Methods: One hundred eighty patients were included in the study. The patients were designed into six groups as follows; Group

1: PCOS patients that received OCP containing 35 mcg ethinyl estradiol (EE) plus 2 mg cyproterone acetate (CA) for 3 months (n=30); Group 2: PCOS patients that received 1 gram myoinositol and 100 mcg folic acid (n=30) for 3 months; Group 3: PCOS patients that received no medication (n=30). Group 4: Healthy patients that received OCP (EE + CA) for 3 months (n=30); Group 5: Healthy patients that received MYO (n=30) for 3 months; Group 6: Healthy patients that received no medication (n=30). Resistance index (RI) and pulsatility index (PI) of both ovarian arteries, hormonal, anthropometric and biochemical parameters were assessed before and after 3 months.

Results: There was a significant increase in RI and PI of both ovarian arteries in healthy women and women with PCOS who received OCP (Group 1, $p<0.001$) (Group 4, $p<0.001$) and MYO (Group 2, $p<0.001$) (Group 5, $p<0.001$). The rate of increasement in both Doppler parameters were significantly in higher in women with PCOS (Group1, Group 2) compared to healthy controls (Group 4, Group 5) ($p=0.002$). The rate of increasement in both RI and PI values were similar for OCP users (Group 1) and MYO users (Group 2) in PCOS patients. Whereas RI and PI values of both ovaries remained unchanged in all untreated women with or without PCOS (Group 3 and 6).

Conclusion: MYO therapy reduced ovarian vascularization in both PCOS and healthy users after 3 months and this decrease is especially noticeable in women with PCOS compared to healthy women. OCP therapy also reduced ovarian vascularization just like MYO therapy. The effect of MYO and OCP therapy were similar in PCOS patients. MYO or OCP treatment is not superior to each other in terms of ovarian blood flow indices.

Keywords: Myoinositol, Polycystic Ovary syndrome, ovarian doppler indices

[OP-082]

The predictive role of serum calprotectin in the preoperative differential diagnosis of endometrioma and other benign ovarian cysts

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Objective: Serum calprotectin level is related to inflammatory process. It is released during neutrophl activation or death. Secreted calprotectin stimulates immunological or non-immunocompetent cells to produce inflammatory mediators such as tumor necrosis factor α, interleukin 1β and interleukin 6. It has been suggested that those cytokines released by activated macrophages in peritoneal fluid of women with endometriosis are significantly increased when compared with the control group. The peritoneal microenvironment including inflammatory cells and cytokines promotes and facilitates adhesion, implantation, proliferation and angiogenesis of ectopic endometrial cells. In the present study, we aimed to evaluate the predictive value of serum calprotectin in diagnosis of ovarian endometriomas.

Material and Methods: This cross-sectional case control study was conducted at the University of Health Sciences, University of Health Science, Zekai Tahir Burak Women's Health Practice and Research Center, between June 2016 and October 2016. A total of 78 cases who admitted to the gynecology, infertility and oncology services of the hospital with a diagnosis of adnexal mass were included in the study. The study group consisted of patients with endometrioma whereas the control group consisted of patients with other benign ovarian cysts including mature cystic teratoma, serous cyst, mucinous cyst, functional cyst. In all patients final diagnosis was made according to the histopathological results. For serum calprotectin value, blood samples were taken immediately before the operation and were centrifuged at 4000 g for 10 minutes. The collected plasma samples were stored at -70 °C to -80 °C until the assay day. Calprotectin plasma levels were measured using the Human Calprotectin ELISA Kit (Hangzhou Eastbiopharm Co. Ltd., Torrance, USA).

Results: There were 39 patients in each group. No significant diffences were observed between the groups in terms of age, body mass index. Although dysmenorrhoea, dyspareunia, chronic pelvic pain were more common in the endometriosis group than in the control group, this differences were statistically insignificant (a ll $p>0.05$). As expected, Ca-125 level in the endometriosis group was significantly higher than in the controls (155.3±52.7 U/mL vs 38.8±29.0 U/mL, $p=0.008$). Serum calprotectin level was 52.8 (9.5-706.4) ng/mL in the endometriosis group and 43.0 (3.3-547.0) ng/mL in the control group which was statistically significant ($p=0.015$). ROC curve analysis for serum calprotectin value was performed, when the threshold was 43.1 ng/mL the sensitivity was found to be 79.5% and whereas the specificity was 51.3% (AUC: 0.661, 95% CI: 0.540-0.781).

Conclusion: To the best of our knowledge, this is the first study in the literature regarding the predictive value of calprotectin in endometrioma diagnosis. Serum calprotectin level in the endometriosis group was found to be higher than in the control group. Although its diagnostic value stand alone is low, it can be used in combination with other markers. Further studies with larger participants are needed to reveal exact role of calprotectin in the pathogenesis of endometriosis.

Keywords: Endometrioma, endometriosis, calprotectin, Ca-125, inflammation, ovarian cysts

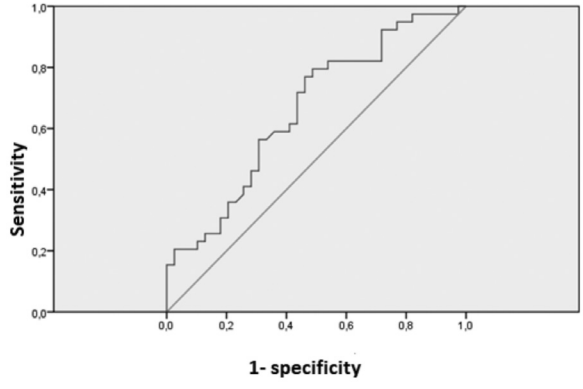


Figure 1. ROC curve analysis of serum calprotectin levels in the prediction of endometrioma

Table 1. Comparison of demographics and laboratory features of the groups

	Endometriosis (n=39)	Control (n=39)	p
Age*	37.0±8.0	37.6±10.5	0.790
Gravida*	1.8±0.7	2.4±1.1	0.105
Parity*	1.5±0.3	1.7±0.7	0.389
BMI (kg/m²)*	27.3±5.8	26.1±3.8	0.284
Smoking (n/%)	10 (25.6)	15 (38.5)	0.226
Age at menarche	12.9±1.2	13.3±1.3	0.151
Infertility (n/%)	4 (10.3)	1 (2.6)	0.358
Dismenorrhae (n/%)	33 (86.4)	27 (69.2)	0.107
Disparonue (n/%)	15 (38.5)	14 (35.9)	0.815
Pelvic pain (n/%)	33 (84.6)	29 (74.4)	0.262
Comorbidity (n/%)	13 (33.3)	9 (23.1)	0.452
Ca-125 (U/mL)	155.3±52.7	38.8±29.0	0.008
Ca-19.9 (U/mL)	55.5±26.9	32.7±18.0	0.521
Calprotectin (ng/mL)	52.8 (9.5-706.4)	43.0 (3.3-547.0)	0.015
Mass size (cm)	7.4±4.0	7.0±4.5	0.712
Bilaterality	8 (20.5)	4 (10.3)	0.347

Data are expressed as mean ± SD or number (%). BMI: Body mass index, A p value <0.05 is considered statistically significant

Table 2. Histopathological results of patients in the control group

	Control group	%
Serous cystadenoma	12	30.8
Mucinous cystadenoma	9	23
Follicle cyst	6	15.3
Mature cystic teratoma	5	12.8
Corpus luteum cyst	4	10.2
Hemorrhagic cyst	3	7.6

[OP-083]

Vaginal cuff dehiscence following total laparoscopic hysterectomy by monopolar cut vs coagulation moe during colpotomy: A noninferiority randomized controlled trial

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Objective: Vaginal cuff dehiscence is a more frequent complication following total laparoscopic hysterectomy when compared to abdominal or vaginal hysterectomies. However, only few retrospective studies have investigated the effect of colpotomy method on vaginal cuff dehiscence. This is the first study which examined the effect of monopolar coagulation vs cut mode during colpotomy at total laparoscopic hysterectomy on vaginal cuff dehiscence.

Material and Methods: We conducted this noninferiority randomized controlled trial at a university hospital, Department of Obstetrics and Gynecology from September 2016 through January 2018 (CTRN: NCT02879487). Eligible women were indicated for total laparoscopic hysterectomy due to benign or malignant reasons. Enrolled women were randomized 1:1 to monopolar coagulation mode or cut mode during colpotomy. The exclusion criteria were suspicion for pregnancy, uterine size exceeding 20 weeks of gestation, contraindication for Trendelenburg position and/or high intraabdominal pressure, clinical advanced stage malignant disease, conversion to laparotomy before completion of colpotomy. We powered the study for the primary outcome, vaginal cuff dehiscence, to detect a 1.5% noninferiority margin between groups, requiring at least 95 participants in each arm. We followed up all participants for ongoing data collection for 12 weeks after surgery.

Results: We assessed 217 women for eligibility, but excluded seven before randomization. Then, 210 participants were enrolled and randomized, 105 in each group. Eleven participants were lost during the follow-up period. The final analyses included 100 participants in the coagulation arm and 99 in the cut arm. The study groups were comparable regarding demographics such as age, body mass index, menopausal status, and indications for surgery. The perioperative parameters such as duration of surgery, additional surgical interventions, postoperative adjuvant therapies were also similar between the groups. The rate of vaginal cuff dehiscence in the coagulation group (0%) was noninferior to that of the cut group (0%). The other vaginal cuff related complication rates were also similar between the groups.

Conclusion: Our results of noninferior vaginal cuff dehiscence outcome between monopolar coagulation and cut modes during colpotomy at total laparoscopic hysterectomy suggest that both monopolar energy modes are acceptable for colpotomy. Vaginal cuff dehiscence can be avoided when a standardized closure technique is used.

Keywords: Coagulation, colpotomy, cut, monopolar energy, total laparoscopic hysterectomy, vaginal cuff dehiscence

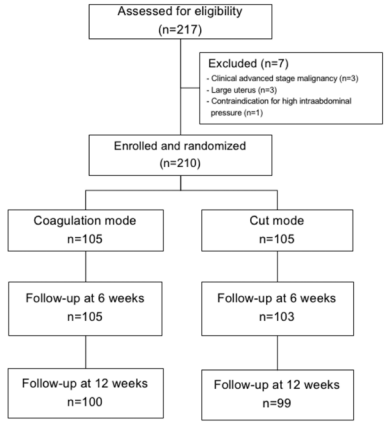


Figure 1. Flowchart of the study

Table 1. Perioperative factors and outcome parameters

	Coagulation (n=100)	Cut (n=99)	p value
Surgical intervention, n (%) TLH + salpingectomy TLH + BSO TLH + BSO + BP(P)LND	 8 (8) 60 (60) 32 (32)	9 (9.1) 58 (58.5) 32 (32.4)	0.123
Antibiotic prophylaxis, n (%) Cefazoline Metronidazole and ciprofloxacine	 97 (97) 3 (3)	 97 (98) 2 (2)	0.658
Radiation therapy within 3 months, n (%) Vaginal radiotherapy External pelvic and vaginal radiotherapy Chemotherapy and vaginal radiotherapy	 12 2 0	 10 1 1	0.679
First intercourse postoperatively, n (%) <6th week 6th-12th weeks Abstinence within 12 weeks	 3 (3) 55 (55) 42 (42)	 2 (2) 53 (53.5) 44 (44.4)	0.870
Duration of operation, min	94±30	92±31	0.702
Estimated blood loss, mL	188±95	174±92	0.322
Hemoglobin drop after surgery, g/dL	0.8±0.4	0.7±0.5	0.349
Blood transfusion, n (%)	2 (2)	3 (3)	0.682
Duration of hospitalization, days	1.7±1.6	1.9±0.9	0.389
Vaginal cuff dehiscence, n (%)	0 (0)	0 (0)	1
Vaginal cuff hematoma, n (%)	0 (0)	0 (0)	1
Vaginal cuff abscess, n (%)	1 (1)	0 (0)	0.995

[OP-084]

Assesment of the relationship between serum high molecular weight adiponectin hormone levels and insulin resistance in patient with Polycystic Ovary syndrome

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Objective: The purpose of this study is to assess the rate of insulin resistance (IR) and the relationship between IR and HMW adiponectin in patients with polycystic ovary syndrome (PCOS).

Material and Methods: Case-controlled study involving 43 women with PCOS and 43 normal women. A 75-g oral glucose tolerance test (OGTT) was performed for each participant. Fasting glucose, fasting insulin, lipid parameters and androgen levels were measured. HMW adiponectin was determined by ELISA and insulin resistance was estimated using the homeostasis assessment insulin resistance index (HOMA-IR).

Results: The insulin resistance in PCOS group was significantly higher. We found a lower level of HMW adiponectin. There was a negative correlation between the clinical and biochemical hyperandrogenism with HMW adiponectin. When we compared the hormone levels and lipid profile of PCOS and control groups; DHEASO4, SHBG, Free androgen index, total testosterone, insulin, HOMA-IR, FSH, LH, E2 levels were significantly higher, and HMW adiponectin was significantly lower in PCOS group. There was a significant correlation with both HMW adiponectin and insulin resistance in terms of BMI, percent body fat, fat mass, FGS (Ferriman-Gallwey score) and triglycerides. HMW adiponectin and HOMA-IR was associated with body fat mass, hyperandrogenism and triglyceride.

Conclusion: We examined the relationship between the HMW with HOMA-IR score in patients with PCOS in this study. The HMW adiponectin levels were lower in patients with PCOS and inversely correlated with IR. Furthermore HMW adiponectin is a stronger predictor of insulin resistance.

Keywords: High molecular weight adiponectin, homeostasis assessment-insulin resistance, Polycystic Ovary syndrome

Table 1. Demographic and clinical characteristics of PCOS and control groups

	PCOS (n=43)	Control (n=39)	p value
Age (years)	21.81±3.78	22.97±4.16	0.190
BMI (kg/m²)	22.10±2.91	21.58±2.81	0.415
Waist-to-hip ratio	0.75±0.05	0.72±0.05	0.031
Percent body fat (%)	22.00±7.79	21.96±7.45	0.561
Fat mass (kg)	14.71±8.59	13.44±6.59	0.486
FGS	11.09±3.99	1.97±1.49	0.000

Table 2. Evaluation of diagnostic criteria for PCOS and control groups

	PCOS (n=43)	Control (n=39)
Oligo-anovulation frequency	36 (83%)	0
PCO frequency on ultrasound	42 (98%)	21 (53%)
Hyperandrogenemia	43 (100%)	0
Clinical hyperandrogenemia	38 (88%)	0
Biochemical hyperandrogenemia	22 (51%)	0
Hyperandrogenism+oligo-anovulation	36 (83%)	0
Insulin resistance	9 (20%)	0

Table 3. Comparison of hormonal and metabolic parameters of the PCOS and control groups

	PCOS (n=43)	Control (n=39)	p value
DHEASO4 (ug/dL)	274.47±91.49	213.42±80.04	0.003
SHBG (nmol/L)	39.00±21.94	74.46±40.42	0.000
Total Testosteron (ng/mL)	0.62±0.22	0.37±0.15	0.000
FAI	7.93±7.32	2.14±1.58	0.000
HMW adiponectin (ng/mL)	5049±2961.34	7493±2939.86	0.001
FBG (mg/dL)	83.54±10.26	82.89±9.66	0.776
Fasting insulin (uU/mL)	8.41±5.65	5.75±1.81	0.007
HOMA-IR	1.72±1.13	1.19±0.42	0.009
Triglyceride (mg/dL)	95.01±54.35	84.10±41.00	0.353
Total cholesterol (mg/dL)	160.70±26.56	164.97±25.53	0.497
HDL (mg/dL)	53.37±11.29	53.19±9.51	0.945
LDL (mg/dL)	88.07±20.77	94.84±21.76	0.186

Table 4. Cross-correlation with other parameters in PCOS patients with HMW adiponectin and HOMA-IR

	HMW adiponectin	HOMA-IR
Variable	**Correlation p value**	**Correlation p value**
HMW adiponectin	1	-0.07 0.579
Age	-0.121 0.313	-0.15 0.207
BMI	-0.390 0.001	0.252 0.034
Waist-to-hip ratio	-0.110 0.372	0.077 0.533
Percent body fat (%)	-0.247 0.044	0.404 0.001
Fat mass (kg)	-0.281 0.022	0.442 0.000
FGS	-0.391 0.001	0.267 0.025
DHEASO4	-0.135 0.280	0.022 0.856
SHBG	0.274 0.026	-0.252 0.040
Total testosterone	0.013 0.917	-0.027 0.824
FAI	-0.258 0.042	0.139 0.265
Triglyceride	-0.261 0.031	0.283 0.021
Total cholesterol	-0.059 0.633	0.151 0.227
HDL	0.186 0.129	-0.384 0.001
LDL	-0.003 0.981	0.199 0.109

[OP-085]

Assessment of gynecological patients' compliance with recommended sexual activity restrictions in postoperative care

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Objective: Surgical success is achieved by minimising intraoperative and postoperative complications. Sexual activity restrictions are recommended to patients for optimal postoperative recovery. Aim of this study is to evaluate patient compliance with sexual activity avoidance following gynecological operations.

Material and Methods: This retrospective study included 144 patients who had undergone various operations at least 6 months before. Demographic data were obtained from patient records including age, body mass index (BMI), complaints on admission, menopause status, and route of operation. The patients were contacted by telephone and requested to respond to some questions. Recommended period of sexual activity avoidance postoperatively, time of the first sexual activity after the operation, whose decision it was, comparison with preoperative sexual routine, and possible reasons of non-compliance with the recommendations were asked. The patients were separated into 2 groups as those who complied with the recommendations and resumed sexual activity within 2 weeks after the recommended time, and those who did not comply by resuming sexual activity more than 2 weeks later than recommended or earlier than the recommended time.

Results: Mean age of patients were 49.7±0.7 years. The mean recommended sexual activity avoidance duration was 4 weeks (range, 2-8 weeks), and the median time to first sexual activity after the operation was 12 weeks (range, 2-20 weeks). The patient group that complied with recommendations comprised 54 (37.2%) patients and the non-compliance group, 90 (62.1%) patients. Of those 90 patients, 11 (12%) stated that they started sexual activity before the recommended time, and 79 (88%) stated that they started later than the recommended time. In half of the whole patient group, the decision to start sexual activity was taken by the spouse, and for the other half it was the couple's decision. No statistically significant difference was determined between the compliance and non-compliance groups in respect of age, BMI, operation route (abdominal, vaginal, laparoscopic), menopause status, complaints on presentation, who made the decision to resume sexual activity and the return to preoperative routine (the same, worse, better). When the reasons for non-compliance were asked, the responses of those who started later than the recommended time were fear in 48%, lack of desire in 28%, pain in 11% and lack of knowledge in 1%. Those who started earlier than the recommended time, gave the reasons as the spouse's insistence in 8 (72%), and that they felt they had recovered in 3 (27%). Of the whole patient group, 62 (42.8%) reported a return to preoperative level of sexual activity, 50 (34.5%) stated a lower level and 33 (22.8%) a higher level.

Conclusion: Surgical procedures on female genital organs raise questions related to future sexuality. The results of the current study showed that the majority of patients delayed resuming sexual activity. At postoperative visits, this subject should be discussed with the patient and her spouse, and detailed information must be given to eliminate any fears in this period.

Keywords: Gynecology, postoperative care, compliance with the sexual activity, return to sexual activity

Table 1. Patients characteristics

	Compliant, (n, %) n=54 (37.2%)	Non-compliant (n, %) n=90 (62.1%)	p
Age (years)	48.6 (±1.1)	50.1(±1.0)	0.33
BMI (body mass index, kg/m^2)	29.3 (±0.6)	29.4 (±0.4)	0.91
Menopause status Premenopausal Postmenopausal Surgical	 13 (24.1%) 41(75.9%) 23 (42.6%)	 25 (27.8%) 65 (72.2%) 22 (24.4%)	0.84
Complaints on admission Vaginal bleeding Pelvic pain Prolapse Urinary incontinance	 32 (59%) 15 (28%) 4 (7%) 3 (6%)	 40 (44%) 28 (31%) 13 (14%) 8 (9%)	0.29
Operation route abdominal surgery Vaginal surgery Laparoscopic surgery	33 (61%) 7 (13%) 14 (26)	50 (56%) 20 (22%) 20 (22%)	0.38
Recommend to avoid sexual activity Yes	 54 (100%)	 90 (100%)	
Informing procedure Verbal By doctor By nurse Written	 26 (48%) 15 (28%) 13 (24%)	 46 (51%) 31 (34%) 13 (14%)	0.32
Duration of avoidance (weeks)	4 (3-8)	4 (2-8)	0.13
First sexual activity after the operation (weeks) Early (n, %) Late (n, %)	 4 (3-8)	12 (2-20) 11 (12%) 79 (88%)	0.00
Who made the decision to resume sexual activity Own decision Spouse decision Couple decision	 0 23 (43%) 31 (57%)	 1 (1%) 48 (53%) 41 (46%)	0.23
The return to preoperative routine Same Worse Better	 24 (44%) 14 (26%) 16 (30%)	 38 (42%) 35 (39%) 17 (19%)	0.18
Reasons for delayed first sexual activity Fear Lack of desire Pain Lack of knowledge		 43 (48%) 25 (28%) 10 (11%) 1 (1%)	
Reasons for premature first sexual activity Spouse's insistence Felt they had recovered		 8 (72%) 3 (27%)	

[OP-086]

Peritoneal melanosis combined with mucinous cystadenoma of the ovary: A case report

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Peritoneal melanosis is a rare benign form characterized by melanin pigment accumulation in the peritoneum. The association of ovarian mucinous cystadenomas and peritoneal melanosis has been previously described only once. We also wanted to contribute to the literature by sharing this rare case supported by images, with you.

Keywords: Adnexial mass, mucinous cystadenoma, peritoneal melanosis



Figure 1. Melanosis and adnexial mass

[OP-087]

Effect of dienogest on pain and ovarian endometrioma size

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Objective: Endometriosis is a common disease which affects approximately 10% of the women on reproductive age. Ther is still debate regarding when to operate endometrioma or if any medication may reduce the growth of ovarian endometriomas. In present study, we aimed to investigate the efficacy of dienogest (DNG) on the growth of the ovarian endometriomas.

Material and Methods: This retrospective analysis included 78 patients with ovarian endometrioma. Thirty patients who did not receive any medications were compared with 48 patients with ovarian endometrioma who received continuously 2 mg/day DNG. We compared the characteristics of the patients including mean ages, body mass index (BMI), serum CA-125 levels, serum AMH levels,

number of gravida, number of parity and the diameter of the ovarian endometrioma. The ultrasonography was performed every 6 months to detect the differences on the mean diameter of the endometrioma.

Results: The follow-up periods were 7.4±1.2 months in expectant group and 6.9±1.1 months in DNG group; p=0.101. There were no differences in terms of mean ages, BMI, serum CA-125 levels, serum AMH levels, number of gravida, number of parity and the diameter of the ovarian endometrioma (on first visit) between groups. Dysmenorrhea and dyspareunia scale were statistically higher in DNG group than in expectant management group at the first evaluation; 5.4±3.5 cm vs 7.9±2.5 cm; p=0.001, and 3.6±3.0 cm vs 5.7±3.4 cm; p=0.005; respectively. After follow-up period, the mean diameter of endometrioma was 5.1±3.2 cm in expectant management group and 5.0±4.7 cm in DNG group, p=0.949. In DNG group; the mean diameter of the endometrioma was reduced to 4.8±4.7 cm; from 5.0±4.7 cm p=0.088, the mean dysmenorrhea scale was reduced to 5.9±2.1; from 7.9±2.5 p<0.001, and the mean dyspareunia scale was reduced to 4.6±2.7; from 5.7±3.4, p<0.001.

Conclusion: The data indicates that DNG was effective on dysmenorrhea and dysparonia scales however it has not any positive effect to reduce the size of the endometrioma.

Keywords: Endometriosis, endometrioma, dienogest, pain, size

Table 1. Comparison of the characteristics of the patients with endometrioma who had followed expectantly versus received dienogest

	Expectant management (n=30)	Dienogest treatment (n=48)	p value
Age (years)	33.9±7.7	34.5±7.2	0.749
BMI (kg/m^2)	23.9±3.8	24.6±5.3	0.525
Follow-up duration (months)	7.4±1.2	6.9±1.1	0.101
Ca-125 (IU/mL)	72.4±57.8	66.7±56.7	0.671
AMH (ng/mL)	2.6±2.2	2.2±1.8	0.391
Gravida	1.0±1.1	1.7±1.5	0.034
Parity	0.8±0.9	1.2±1.0	0.110
Dysmenorrhea*	5.4±3.5	7.9±2.5	0.001
Dyspareunia*	3.6±3.0	5.7±3.4	0.005

BMI: Body mass index (kg/m^2), *: Visual analog scale at the first visit, +: Visual analog scale at the follow-up period p<0.05 was accepted as significant

Table 2. Comparison of the diameter of the endometrioma and pain scale at the first and second visit who received dienogest

	Before dienogest treatment (n=48)	After dienogest treatment (n=48)	p value
Endometrioma diameter (cm)	5.0±4.7	4.8±4.7	0.088
Dysmenorrhea*	7.9±2.5	5.9±2.1	<0.001
Dyspareunia*	5.7±3.4	4.6±2.7	<0.001

*: Visual analog scale at the second visit p<0.05 was accepted as significant

Table 3. Comparison of the diameter of the endometrioma who had followed expectantly versus received dienogest

	Expectant management (n=30)	Dienogest treatment (n=48)	p value
Endometrioma diameter (cm) (first visit)	5.1±3.2	5.0±4.7	0.949
Endometrioma diameter (cm) (6 months later)	4.8±3.2	4.8±4.7	1
Dysmenorrhea+	5.0±3.3	5.9±2.1	0.165
Dyspareunia+	3.2±2.7	4.6±2.7	0.029

+: Visual analog scale at the follow-up period p<0.05 was accepted as significant

[OP-089]

Evaluation of the correlation between preoperative anterior wall myometrium thickness and uterine closure techniques in the dvelopment of post-cesarean uterine scar defect (nich)

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Objective: It is widely known that incomplete healing of cesarean scar is a long-term complication of cesarean operation. Given the relationship between uterine scar defects (niches) and gynecologic manifestations, obstetric complications and potential subfertility, it is important to elucidate the etiology of niche and to develop preventive strategies. We evaluated the correlation between preoperative anterior wall myometrial thickness (PAMT) and uterine closure techniques in the development of niches after CS. To evaluate the etiology of niche and to evaluate whether the lower segment thickness may have predictive value in the postoperative niche formation and to develop a lower segment thickness cut off value to predict niche formation.

Material and Methods: A total of 75 patients referred to our clinic for referral of emergency or elective CS, between February 2016 and November 2016 were included in this prospective study. Patients with previous history of non-cesarean uterine surgery, those with more than 5 hours of active labor and over 4 cm of cervical dilatation, those with pelvic radiation or cervical cancer history, preeclampsia, HELLP, diabetes mellitus, multiple pregnancies, preterm pregnancies, placental invasion anomalies were excluded. PAMT measurement is taken about 4 cm above the cervical internal os by transabdominal USG from all patients preoperatively (Figure 1). Modified Misgav-Ladach technique was used as the caesarean technique. Uterus lower segment incision is closed with single or double layer full thickness closure by continuous sutures. At postoperative 6-8 weeks niche and uterus position were evaluated by transvaginal ultrasonography. The depth and length of the niche area and the thickness of the anterior wall residual myometrium tissue were measured by evaluating the presence of niches in the uterine incision line and the relationship with their PAMT is evaluated (Figure 2). The degree of niche was determined by calculating the niche area. Grading is described as: Grade 1 niche

area <15 mm², Grade 2 niche area 16-25 mm², Grade 3 niche area >25 mm². The ratio of niche height to total of niche height and residual myometrium is considered as large niche, if that's 50% or greater.

Results: No statistically significant relationship was found between niche area, height, base, width and PAMT. It was found that there was a smaller niche area in the single-fold uterine closure than the double-fold uterine closure ($p<0.05$). The niche formation was 80% Grade 1, 4% Grade 2, 16% Grade 3 in single-fold uterine closure and 52% Grade 1, 24% Grade 2, 24% Grade 3 in double-fold closure group. There was no statistically significant difference between groups at patients with previous CS in terms of area and width. The niche area was statistically significantly higher in retroflex uteruses compared to anteflexes ($p<0.05$).

Conclusion: Among the possible factors for niche, uterine closure technique plays an important role. To date, it is clear that the most appropriate uterine closure technique in CS has not been elucidated in terms of prevention of niche development and related symptoms. More extensive, randomized controlled trials are required to elucidate and prevent the etiology of niche.

Keywords: Caesarean section, niche, uterine closure techniques, uterine scar defect

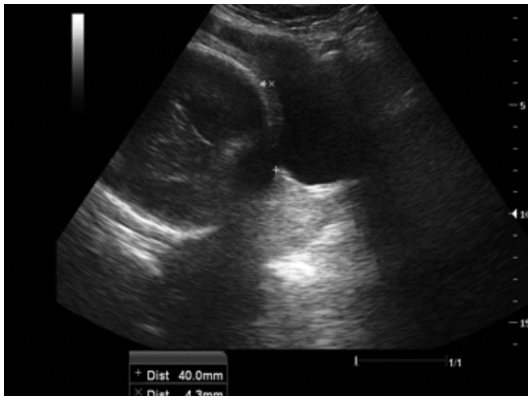


Figure 1. Measurement of preoperative anterior wall myometrium thickness, transabdominal USG image

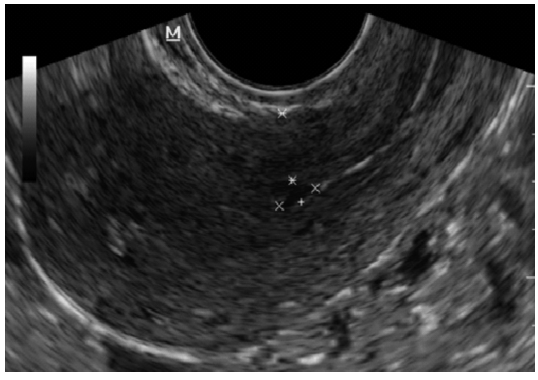


Figure 2. Transvaginal USG image of uterine niche after the first cesarean section

[OP-090]

Superficial myofibroblastoma of the vulva: A case report and review of the literature

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Superficial myofibroblastoma of the lower female genital tract is an uncommon, benign mesenchymal tumor composed of spindle tumor cells with myofibroblastic differentiation. The pathogenesis is still unknown, but it is thought to be hormone-related. The vulvar localization of the tumor is quite rare. We report a 40-years-old woman who presented with a 3-month history of a painless lump of the vulva. On pelvic examination, except for mobile mass of about 3cm in diameter on left labium minora, there were no abnormalities detected in other gynecological organs. After the lesion had been excised, histopathologic result came up as superficial myofibroblastoma. The tumor was well-demarcated and included spindle cells without atipi and mitosis. Immunohistochemical investigations showed reactivity for caldesmon. Ki-67 proliferative index was 1%. Superficial myofibroblastoma of the lower female genital tract is a clinically benign, and its complete resection is considered to be sufficient as a treatment. Despite the fact that this tumor is quite rare, it should be included in differential diagnosis of soft tissue tumors of the lower female genital tract. So it is important to identify from the aggressive behavior of other related mesenchymal tumors.

Keywords: Female genitalia, muscle tissue neoplasm, vulva



Figure 1. A well-demarcated mass of white cream in color

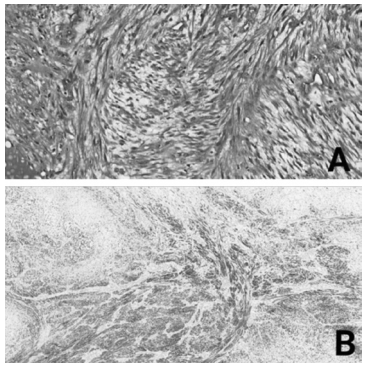


Figure 2. A) Spindle cell proliferation crossing one another (Hematoxylin&Eosin stain X20), B) The association of an area stained and nonstained by caldesmon X5

Table 1. Clinical details of patients

References	Age (years)	Presentation	Size (mm)	Medication	Follow-up
Ganesan et al.	27	Mass	27	N/A	NER 5 years
Ganesan et al.	38	Mass	45	N/A	N/A
Diwadkar and Barber	56	Mass	30	N/A	N/A
Wei and Zhu	80	Mass	40	None	Ex *3 years
Magro et al.	N/A	Mass	20	None	N/A
Magro et al.	N/A	Mass	12	None	N/A
Meseci et al. (present case)	40	Mass	30	None	NER 4 months

NER: No evidence of recurrence, N/A: Not available. *The patient was free of disease after surgery, but died of heart attack 3 years later. She had also an eccrine adenocarcinoma of the vulva accompanied by her histopathologic outcome

[OP-091]

The effect of hyperemesis gravidarum on gestational diabetes

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Objective: Nausea and vomiting in pregnancy is the most common complication that observed in 50-80% of pregnant women. Approximately 1% of pregnant women experience severe nausea and vomiting during the first trimester and are diagnosed with hyperemesis gravidarum (HG). HG is the major reason for hospitalization before 20 gestational weeks. A relationship between insulin sensitivity, HG, and gestational diabetes mellitus (GDM) has been established. In this study, we aimed to assess the impact of HG on GDM.

Material and Methods: This prospective controlled study was conducted at Konya Akşehir State Hospital between March 2015 and September 2018. A total of 100 women included in this study (n=46 hyperemesis, n=54 control). Women diagnosed with insulin resistance or diabetes mellitus before pregnancy, who did not accept oral glucose tolerance test (OGTT) and giving birth to another center were excluded. The study group consisted of women hospitalized for HG during their pregnancy. Clinical and laboratory findings were used to make hospitalization decisions. For hospitalization, women had to meet at least one of the following criteria: body weight loss of more than 5 kg, a urine ketone test result of more than 3+, or an inability to drink any type of liquid. Screening for GDM was performed once during pregnancy. GDM diagnosis was obtained with a 75-g OGTT, during the second trimester, from 24-28 weeks of gestation. Main outcomes were gestational diabetes, pregnancy-induced hypertension, fetal birth weight, preterm birth and fetal sex. Statistical analysis was performed using SPSS 15.0 $p<0.05$ was considered as statistically significant.

Results: At initial examination, no significant differences in maternal age and BMI were observed between the two groups. We found no statistical difference between the groups in the prevalence of GDM, pregnancy-induced hypertension, fetal birth weight, preterm birth and fetal sex.

Conclusion: In the literature, there are many studies that shows negative effects of HG on maternal and fetal outcomes. In our study, it was found that HG is not associated with adverse pregnancy outcomes. The lack of this study is the small number of patients. More extensive studies are needed to define long term effects of HG.

Keywords: Hyperemesis gravidarum, gestational diabetes, pregnancy

[OP-092]

Analysis of red blood cell transfusion practice at a tertiary center

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Objective: To investigate antepartum red blood cell (RBC) transfusion practices at a tertiary center.

Material and Methods: This was a retrospective study that explored demographic, laboratory features and short-term outcomes of women who received RBC transfusion during antepartum period at University of Health Sciences, Bursa Yüksek İhtisas Training and Research Hospital within 5-year. We According to the transfusion protocol of our hospital, women with following features received RBC; 1) hemoglobin level below 8 gr/dL and/or 2) women with a clinical sign of acute drop in hemoglobin level including tachycardia, hypotension, syncope. We excluded women who delivered outside of our hospital or received RCB transfusion for correction of chronic anemia.

Results: A total of 246 women were analyzed and the mean maternal age and gestational age at delivery were 28.6 y and 37.0 w, respectively. The other characteristic, laboratory features were shown in Table 1. The intra and post-operative predisposing factors for transfusion in descending order of frequency included; uterine atony (n=112, 45.5%), placenta previa (n=38, 15.4%), cervical tear (n=27, 10.9%), placenta accreata spectrum (n=18, 7.7%), abruption placenta (n=17, 6.9%), and uterine rupture (n=6, 2.4%). Additional procedures during intra and post-partum were included; antepartum hysterectomy (n=29), cervical

Bacri balloon placement (n=27), Buum curettage (n=4), uterine artery ligation (n=2), B-lynch suture placement (n=1). Moreover, re-laparotomy operation was warranted for 4 women. We observed post-transfusions in 60 women (24.3%); electrolyte imbalance (n=51), acute renal failure (n=6) and acute lung injury related transfusion (n=3). We observed 1 maternal death and 2 severe morbidity including permanent muscle weakness in left arm and renal failure.

Conclusion: Uterine atony was the most predisposing factor for red cell transfusion in obstetric practice. Post-transfusion complication was observed in 1 of 4 women. Therefore, we should avoid overuse of blood product transfusions.

Keywords: Atony, complication, red blood cell, transfusion

Table 1.Demographic and antepartum features of study group

Variables	Mean ± standard deviation (range) or Percentages (Frequencies)
Maternal age (y)	28.6 ± 4.3 (17-51)
Gravida	2.73 ± 1.1 (1-11)
Parity	2.52 ± 1.0 (1-11)
The number of previous cesarean delivery	2.4 ± 2.2 (1-6)
Co-morbidities	
- Preeclampsia	31 (12.6%)
- HELLP syndrome	3 (1.2%)
- Diabetes	3 (1.2%)
- Macrosomy	3 (1.2%)
- Multiple pregnancies	11 (4.4%)
- Stillbirth	2 (0.8%)
Vaginal delivery	58 (23.5%)
Emergent cesarean delivery	168 (68.2%)
General anesthesia	82 (33.3%)
Hemoglobin level before transfusion (gr/dl)	6.6 ± 3.2 (1.9-9.1)
Hemoglobin level after transfusion (gr/dl)	9.4 ± 2.3 (7.5-11.7)
Intraoperative RBC transfusion (unit)	1.0 ± 1.8 (0-10)
Postoperative RBC transfusion (unit)	2.4 ± 1.5 (0-8)
Intraoperative FFP transfusion (unit)	0.7 ± 0.2 (0-12)
Postoperative FFP transfusion (unit)	1.7 ± 0.8 (0-8)
Intensive care unit admission	20 (8.1%)
Length of hospitalization	4.0 ± 1.5 (2-19)

[OP-093]

First-trimester ultrasound diagnosis of holoprosencephaly

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Holoprosencephaly, a severe and almost invariably lethal brain abnormality characterized by an incomplete midline cleavage of the prosencephalon into two hemispheres between the 18th and the 28th embryonic day. As a result a single lobed brain structure is present. Prevalence of holoprosencephaly is between 40 and 50 per 10.000. The most widely used classification according to severitiy includes three major types of the malformation as alobar, semilobar, and lobar types. More than two thirds of cases are associated with chromosomal abnormalities, mostly trisomies 13 and 18. The prenatal diagnosis of this condition is made confidently during the second trimester, at which time fusion of the anterior horns of the cerebral ventricles and thalami, usually in association with facial abnormalities and microcephaly, is detected. In the first trimester, the visualization of both choroid plexuses in an axial plane is called as butterfly sign, and the absence of this sign has very high sensitivity and specifity for alobar holoprosencephaly. In all cases, holoprosencephaly was diagnosed sonographically in the first trimester by the demonstration of an absent "butterfly" sign in association with an anterior monoventricular cerebral cavity and an absent midline echogenic line on axial views of the fetal head. We present a case of early diagnosis of holoprosencephaly at 11 weeks of gestation. A 32 year old G3P2 pregnant woman was referred to our clinic at 11 weeks of gestation with a diagnosis of fetal anomaly. The axial section at the level of biparietal diameter showed a single sickle shaped ventricle with fused thalami suggestive of alobar variety of holoprosencephaly (Figure 1) and also proboscis, hypotelorism (Figure 2) and cystic hygroma (Figure 3) were confirmed with ultrasound examination. The couple requested termination of pregnancy. This was performed by administration of vaginal prostaglandin. As a consequence, early diagnosis of this severe malformation is possible even in early pregnancy. First trimester diagnosis would potentially allow parents more time to receive counseling and to consider their options, including early and safer termination of the pregnancy. Lobar or semilobar holoprosencephaly, however, are more subtle to diagnose and will usually not be detected in the first trimester.

Keywords: First trimester anomaly screening, holoprosencephaly, proboscis



Figure 1. Transverse plane showing holoprosencephaly



Figure 2. Proboscis

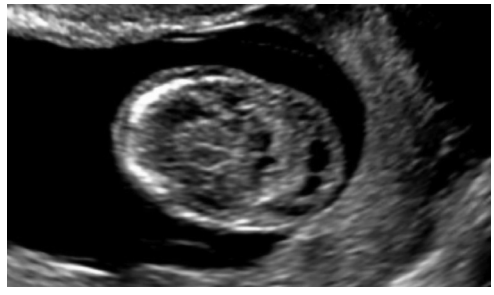


Figure 3. Cystic hygroma

[OP-094]

A rare cause of antepartum hemorrhage: Bleeding from the emptr uterine cavity in a last trimester pregnant with utrus didelphys

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Bleedings resulted from the genital system after fetal viability limit or those into genital system are defined antepartum hemorrhage. Antenatal bleeding is seen in 2-5% of pregnancies. The most common causes of this bleeding include placenta previa and ablatio placenta. In the case of bleeding from the uterine cavity with pregnancy such as these condition, fetal and maternal well-being should immediately be evaluated, and indication for delivery should be sought. The incidence of Müllerian duct anomalies has been reported at various rates (0.1%-3.8%), although among these anomalies the incidence of uterus didelphys is about 5%. The incidences of spontaneous abortion, premature delivery, early membrane rupture, and abnormal fetal presentation increase in patients with uterus didelphys. Whereas bleedings from the empty uterine cavity during pregnancy are extremely rare in the literature. A patient who stated she was pregnant for 8 months presented to the emergency room with vaginal bleeding. It was learned from her medical history that, she was 32 years old, and she previously had two vaginal deliveries in term with head presentation. In the ultrasonography of the patient, an intrauterine, single, living fetus was monitored at head presentation with a biometry compatible with 33 weeks. Amniotic fluid was within normal limits, and placenta localization was fundal. Then, pelvic examination was performed (Figure 1). In the examination carried out utilizing vaginal retractors, double cervix was observed (Figure 1). The bleeding was found to be originated from the right posterolateral cervix. A double uterine cavity was seen in the ultrasonography taken again. It was understood that the fetus was located in the left anterior localized uterine cavity. Next to this cavity, the other uterine cavity was monitored with dense decidual tissues (Figure 2). Thereupon, the patient was hospitalized and followed-up. Upon upon the bleeding was stopped, the patient was discharged and followed-up on outpatient basis. She had no bleeding during follow-up. Upon spontaneous uterine contractions began at the 39th week of gestation, the patient was hospitalized and gave birth to a healthy baby with 3400 g. Fusion of the two Müllerian ducts and then resorption of the septum between them is completed between intrauterine 10th and 17th weeks. Since uterine anomalies cause many obstetric complications, the diagnosis is of importance. The incidences of premature delivery, breech presentation, spontaneous abortion and early membrane rupture increase in the cases of uterus didelphys. The diagnosis of uterus didelphys can be diagnosed with ultrasonography, MRI, hysterosalpingography, and laparoscopy-hysteroscopy in nonpregnants. However, particularly at the late gestational weeks, it is difficult to set diagnosis with ultrasonography, because the cavity of pregnancy decreases visualization of the other empty cavity. As in our patient, although a history of previous vaginal delivery in term in patients presenting with antenatal bleeding moves us away from the diagnosis of uterus didelphys and other uterine anomalies in the etiology of bleeding, examination of directly visualized cervix and a careful ultrasonographic investigation may be diagnostic, and guide management of the patient.

Keywords: Antenatal hemorrhage, uterine anomaly, uterus didelphys

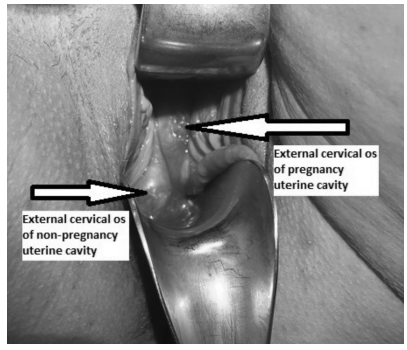


Figure 1.

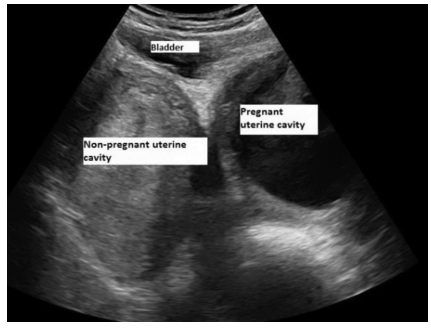


Figure 2.

[OP-095]

Hepatitis-B and hepatitis-C seropositivity rates in pregnancy in Isparta province

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Objective: Perinatal infection is the main way of transmission in high endemic countries, while horizontal infestation in early childhood is the most common transmission way in medium endemic countries. Newborn transmission from an infected mother can rarely occur during pregnancy, during or after birth. Hepatitis-B and hepatitis-C viruses are viruses that can infect with infected body fluids. Moreover, chronic hepatitis B or C virus infection is the most important risk factor for the development of hepatocellular carcinoma. In this study, it was aimed to investigate the seroprevalence of hepatitis B and hepatitis C antibodies in pregnant women living in Isparta and its region.

Material and Methods: HBsAg and anti-HCV results of pregnancies who applied for routine pregnancy follow-up to Isparta Obstetrics and

Pediatrics Hospital, Obstetrics and Gynecology Polyclinic between January 2013 and December 2013 were retrospectively screened. Serological tests were studied using macro-ELISA. Data for statistical evaluations were transferred to the computer in SPSS 18 statistical package program, frequency, percentage, mean ± standard deviations were calculated in statistical analyzes.

Results: 4987 blood samples for HBsAg and 4632 blood samples for anti-HCV was evaluated. Results of 4987 cases; HBsAg was detected in 63 patients (1.3%), in 14 patient (0.3%) of 4632 cases anti-HCV seropositivity was detected (Table 1). When the cases were examined according to age groups, the highest age group was 20-30 in both groups, while the least age group was 36-40 years (Table 2).

Conclusion: Hepatitis-B and hepatitis-C viruses are viruses that can infect with infected body fluids. It is important to know the frequency of infection in pregnant women to protect the newborn. Anti-HBs and anti-HCV positivity rates that we found in our study were found to be similar to the positivity rates determined in the general population in our country. When these ratios are evaluated, especially in the pregnant and reproductive age groups; planning and effective implementation of screening and vaccination programs in terms of hepatitis B will be an appropriate approach in terms of community health. HBsAg should be considered in all pregnant women in blood samples. However, it may be worth investigating anti-HCV in pregnancies at risk. Early diagnosis of the disease will provide important advantages for vaccination and treatment as it will protect the patient from future complications. In addition, these viruses can infect the baby to be born vertically or horizontally, and can create long-term health risks for the baby. It is important to know the frequency of chronic HBV infection in pregnancy in order to protect the newborn from the risks of HBV infection. Knowing HBsAg and anti-HCV positivity before intervention in patients; physicians and other health care providers to take preventive measures against disease transmission.

Keywords: HBV, HCV, pregnancy, seroprevalence

Table 1. Distribution of test results

Test result	HBsAg	Anti-HCV
	n (%)	n (%)
Positive	63 (1.3)	14 (0.3)
Negative	4924 (98.7)	4618 (99.7)
Total	4987 (100)	4632 (100)

Table 2. Distribution of HBsAg and anti-HCV according to age groups

Age groups	HBsAg	Anti-HCV
	n (%)	n (%)
Under 20 years	88 (12.7)	22 (14.3)
20-25	19 (30.2)	4 (28.5)
26-30	16 (25.4)	5 (35.7)
31-36	12 (19.0)	2 (14.3)
36-40	4 (6.4)	1 (7.2)
Over 40 years	4 (6.4)	0 (0)
Total	63 (100)	14 (100)

[OP-096]

Severe 25-OH vitamin D deficiency as a reason for adverse pregnancy outcomes

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Objective: There is a growing concern about the unfavorable effects of vitamin D deficiency in general population, including pregnant women, worldwide. The aim of this study is to evaluate the effect of severe maternal serum 25-OH vitamin D levels on adverse pregnancy outcomes in first trimester.

Material and Methods: Serum samples of 86 pregnant women in first trimester were collected prospectively from May 2017 to June 2017. Serum 25-OH vitamin D levels were analyzed by enzyme immunoassay method. Patients were classified according to maternal serum 25-OH vitamin D levels as Group 1 (n=34) <10 ng/mL and Group 2 (n=52) >10 ng/mL. The two groups were compared in terms of adverse pregnancy outcomes.

Results: The mean 25-OH vitamin D levels of the total 86 pregnant women were 13.83 (6-48) ng/mL. 40% of the pregnant women had very low level of 25-OH vitamin D levels (<10 ng/mL). The adverse pregnancy outcomes were significantly increased in Group 1 (p<0.018).

Conclusion: Maternal serum 25-OH vitamin D levels <10 ng/mL is a risk factor for adverse pregnancy outcomes. 25-OH vitamin D levels should be screened in high-risk pregnant women and treated in case of deficiency.

Keywords: 25-OH vitamin, first trimester, pregnancy, adverse outcomes

[OP-097]

A case report: First trimester pregnancy complicating with uterine prolapse, managed with a vaginal pessary

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Uterine prolapse during pregnancy is a rare condition with an estimated incidence of 1 case in 10.000-15.000 pregnancies. Complications of this condition are discomfort, cervical desiccation and ulceration, urinary tract infection, acute urinary retention, abortion, preterm labor, fetal and maternal sepsis, and maternal death. The management varies from conservative approaches to surgical treatment depending on the severity and the patient's preference. The management in the present case was a conservative approach, vaginal pessary. In this report we present a case with uterine prolapse in the first trimester which was managed successfully with vaginal pessary. A 27 year-old (G2 P1) woman was referred to our emergency unit complaining about unable to urinate for 3 days. In the patient's medical history there was no medication and she was pregnant with a 13 week gestational age. There was no history of urinary incontinence or uterine prolapse before pregnancy, as well as no other abnormalities in the pregnancy period. The obstetric USG revealed a live in utero singleton gestation with a normal amniotic fluid index, CRL: 13w1d (Figure 1). Additionally the bladder was full of urine (globe vesicale) (Figure 2). On pelvic examination there was evidence of grade 3 uterine prolapse and the cervical os was closed (Figure 3). After the catheterization of bladder, a 65 mm-diameter, 25 mm-height Arabin pessary was placed in to the vagina to reduce prolapses (Figure 4). After applying the pessary, the patient had no more complaints about urinary retention or uterine prolapse. The patient was controlled weekly. The pessary was removed, disinfected and then replaced back in to the vagina at each visit. She was followed up until 36th week. There were no signs of preterm labor, cervicovaginal infection of urinary retention. The patient gave birth at 36th week by spontaneous vaginal delivery to a healthy baby. The main causes of uterine prolapse may be difficult labor and delivery, trauma during labor, delivery of a large baby, cervical elongation caused by physiologic changes of pregnancy, increased intraabdominal pressure (chronic constipation etc.), obesity and relaxation of the supportive ligaments. Premature labor and delivery are the most prevalent complications of pregnancy with pelvic organ prolapse. In this patient uterine prolapse occurred in the first trimester of second pregnancy. Since there were not any risk factors in this case, we considered that this uterine prolapse could be due to physiologic changes of pregnancy. The first attempts to acute urinary retention are the drainage of bladder and the reduction of uterine prolapse. A pessary could be an option to keep the uterus in a proper position and maintain a normal vesicoureteral angle. Pessaries can be applied easily. The silicone coated ring pessary is more convenient, since it can be removed easily by the patient. Common complications of pessaries are vaginal discharge, mucosal erosions of vagina and odor. In this patient, we did not encounter any of these complications. Vaginal pessary may be helpful to avoid complications of uterine prolapse during pregnancy. In this report a first trimester pregnancy, complicated with uterine prolapse was managed with an Arabin pessary successfully.

Keywords: Pregnancy, uterine prolapse, vaginal pessary

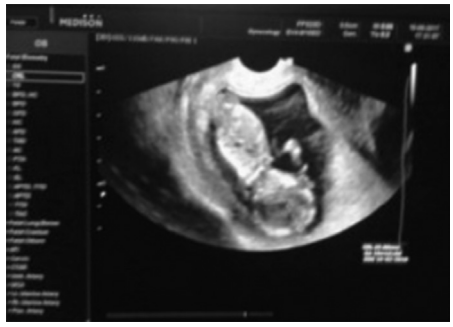


Figure 1.

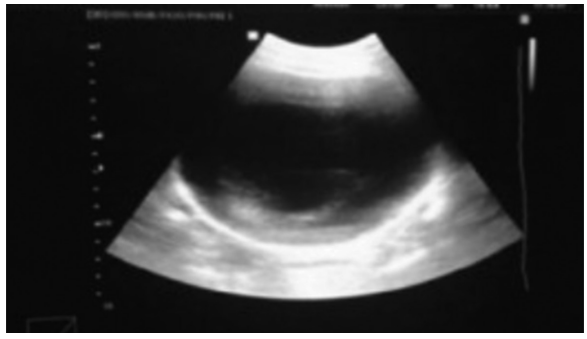


Figure 2.



Figure 3.

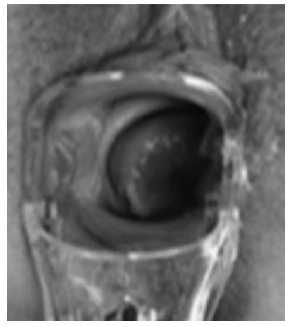


Figure 4.

[OP-098]

Maternal serum leptin concentrations in IUGR and IUGR with pre-eclampsia

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Objective: Preeclampsia (PE) and intrauterine growth restriction (IUGG) are one of the mostly seen major causes of maternal mortality and morbidity. The aim of the present study was to investigate leptin

levels in venous blood sample taken from pregnants with PE, IUGR with PE and control healthy group.

Material and Methods: A total of 92 consecutive cases of pregnant women enrolled from March 2015-April 2016 with IUGG (n=32), IUGG with PE (n=34) and control healthy pregnants (n=26) going into labor at Marmara University Hospital Department of Obstetrics and Gynecology. Information regarding maternal age, gravida, parity, obstetric history, systemic disease (DM, HT, renal, liver disease etc.), maternal smoking and alchohol use, drugs were collected. PE and IUGG were classified using actual guidelines. For the calculation of leptin levels 10 mL venous blood sample obtained from patients. Serum was separated by centrifugation, and samples were stored at -80 C at hospital laboratories. Leptin was measured using the DRG® Leptin (Sandwich) ELISA (EIA-2395) kits. The measurements were performed by laboratory technician being unaware of the patient groups. Leptin levels were compared according to groups using maternal and fetal parameters.

Results: Mean serum leptin levels obtained from pregnants were 23.4±13.4 ng/mL, 12.4±9.3 ng/mL and 9.88±7.44 ng/mL, in IUGR with PE, IUGR and control groups, respectively. Leptin levels were significantly higher in cases IUGR with PE vs. IUGR alone and control healthy group (p<0.0001). Despite serum leptin levels were higher in IUGR alone group than control group, no statistical significance was achieved in comparison (p=0.467).

Conclusion: According to recent data, leptin levels are mostly elevated in PE and IUGR cases. Leptin levels were higher among PE and IUGR patients which were similar with previous studies. Serum leptin can be used as a predictive marker for risk assesment in IUGR cases with PE.

Keywords: Preeclampsia, intrauterine growth restriction, leptin, pregnancy

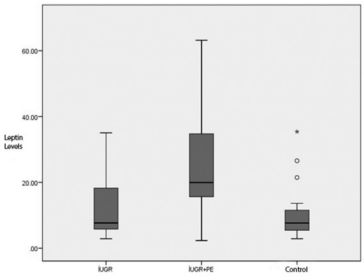


Figure 1. Comparing of leptin levels between groups a) IUGR+PE (23.4±13.4) > IUGR (12.4±9.3): p<0.0001 * b) IUGR+PE (23.4±13.4) > control (9.88±7.44): p<0.0001 * c) IUGR (12.4±9.3) > control (9.88±7.44): p=0.467

[OP-099]

Usage of blood components in a tertiary level hospital's obstetrics and gynecology service

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Objective: Replacement of blood components can be lifesaving in obstetrics and gynecology. Despite several guidelines and algorithms that standardize their usage, there are many clinical indications that were left for clinicians to decide. Unnecessary or ineffective utilization of blood components may lead to medical, legal, and economic consequences. Therefore, the goal of this study was to analyze the extent of blood component usage and to report transfusion rate in our tertiary level obstetrics and gynecology service.

Material and Methods: This was a retrospective observational study conducted at a university research hospital in the city of Aydın, Turkey. The study was approved by the institutional review board at Adnan Menderes University. Patient files for obstetrics and gynecology service admissions for the last 21 months were extracted from medical records. Data were than analyzed for blood transfusion indications, type of blood component used, pre and post-operative hemoglobin levels (Hgb) and type of clinic service admissions during hospitalization (obstetrics vs. gynecology). Transfusion rates were calculated. Descriptive statistics were presented as mean ± standard deviation and frequency (%).

Results: There were 5746 admissions from 3958 patients. During the study period, 1618 obstetric (1258 cesarean, 360 vaginal deliveries) and 1852 gynecologic operations were performed. In the same period, 680 units of packed red blood cells (PRBC), 228 units of fresh frozen plasma (FFP) and 29 units of platelets were used for total of 282 patients. Forty-four (15.6%) of them had chronic and 238 (84.6%) of them had an acute indication. Thirty-eight (30.1%) gynecology cases had PRBC transfusions for anemia without operation. Mean pre-transfusion Hgb was 8.4±1.5 mg/dL and mean post-transfusion Hgb was 9.7±1.0. Percentage for PRBC usage for gynecologic indications was 46.3% and 53.3% for obstetric indications. As expected, late pregnancy (>20 weeks) and immediate postpartum PRBC usage was higher than early pregnancy (<20 weeks) indications among obstetric cases: in 136 (87.2%) vs 20 (12.8%) cases. Calculated transfusion rate for both services was 4.9%, higher than expected levels.

Conclusion: Tertiary level hospital obstetrics and gynecology clinics' blood component transfusion rates may be higher than the expected due to referral of high risk patients from other hospitals with lower service level. Every institution must customize their standards both to minimize unnecessary transfusions related morbidity and must be prepared to provide wide range of blood components when necessary.

Keywords: Obstetrics, gynecology, blood component, transfusion

Table 1. Descriptive statistics of the cohort

Characteristic	Total
Age (mean ± SD)	38.9 ± 13.9
Service group, n (%)	
Obstetric	156 (55.3)
Gynecologic	126 (44.7)
Obstetric group, n (%)	
Late pregnancy and peripartum	136 (87.2)
Early pregnancy*	20 (12.8)
Gynecologic group, n (%)	
Transfusion w/o operation	38 (30.1)
Transfusion w/ operation	88 (69.9)
Hospitalization Time, n (%)	
1 day	17 (6)
2-4 days	153 (54.3)
>5 days	111 (39.4)
Transfused Component	
PRBC case, n (%)	
PLT and/or FFP case, n (%)	201 (71.3)
PRBC + PLT/FFP case, n (%)	21 (7.4)
	60 (21.3)
Hemoglobin Level, (mean ± SD)	
Pre-transfusion (mg/dl)	8.4 ± 1.5
Post-transfusion (mg/dl)	9.7 ± 1.0
Condition, n(%)	
Acute	238 (15.6)
Chronic	44 (84.4)

PRBC, packed red blood cells; PLT, platelets; FFP, fresh frozen plasma; w/, with; w/o, without; *<20 weeks of

Table 2. Blood component usage per obstetric and gynecologic cases

Service / Blood Component	Gynecology cases, n (%)	Obstetrics Late pregnancy-peripartum cases, n (%)	Obstetrics Early pregnancy* cases, n(%)	Total, n (%)
PRBC	101 (50.24)	87 (43.2)	13 (6.46)	201 (100)
PLT and/or FFP	5 (23.80)	15 (71.4)	1 (4.76)	21 (100)
PRBC + PLT/FFP	20 (33.33)	34 (56.6)	6 (10)	60 (100)

PRBC, packed red blood cells; PLT, Platelets; FFP, fresh frozen plasma; * before 20 weeks.

[OP-100]

Complications and mortality observed in obstetric intensive care

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Objective: In this study, with faculty ethics committee permission received, the complications and mortality rates of obstetric cases admitted to the Intensive Care Unit of Kahramanmaraş Sütçü İmam School of Medicine Hospital Anesthesia and Reanimation from 2013 to 2016 were investigated.

Material and Methods: The age, gestational age, gravida-parity, accompanying diseases, reason for admission to intensive care, duration of stay in intensive care, complications and mortality rates of cases were recorded. After all patient records were investigated, obstetric care levels were determined and recorded (Tables 1, 2).

Results: Within this period there were a total of 124 obstetric patients requiring intensive care, with a total of 1724 patients admitted to intensive care and a total of 4343 births. Complications developed in 20 obstetric patients admitted to intensive care (Table 3).

Conclusion: When causes of mortality among obstetric patients admitted to intensive care are investigated, we lost patients most commonly (50%) to complications linked to hemorrhage. The most common cause of hemorrhage was placenta insertion anomalies (n=25), with the second cause postpartum hemorrhage (n=21). Monitoring pregnancy cases and prenatal diagnosis of placental anomalies will be beneficial to prepare for the birth, prevent complications and reduce mortality.

Keywords: Complications, hemorrhage, obstetric intensive care

Table 1. Patient characteristics

Table 1. Patient characteristics

	0	%
Age		
<20	9	7.3
20-34	81	65.3
35-39	28	22.5
>39	6	4.8
Cesarean in History	45	36.3
Additional Diseases		
Cardiac	5	4
Hypertension	3	2.4
Asthma	1	0.8
Venous failure	2	1.6
Epilepsy	1	0.8
Rheumatoid arthritis	1	0.8
Kidney disease	2	1.6
ITP*	1	0.8
operated saliva gland tumor	1	0.8
Operated myomectomy	2	1.6
Facial paralysis	1	0.8

*ITP = Immune thrombocytopenic purpura

Table 2. Distribution of intensive care levels for reasons for admission

	Level					
	Level 1		Level 2		Level 3	
	0	%	0	%	0	%
HELLP	1	4.8%	13	61.9%	7	33.3%
Hemorrhage	2	3.4%	22	37.3%	35	59.3%
Hypertension	3	11.5%	7	26.9%	16	61.5%
Problem apart from pregnancy	4	40.0%	3	30.0%	3	30.0%
Sepsis	0	.0%	5	62.5%	3	37.5%
TOTAL	10	8.1%	50	40.3%	64	51.6%

Table 3. Complications and possible causes

Table 3: Complications and possible causes

	n	%	Probable complication cause	Maternal mortality rate(%)	Mean duration of ICU stay (days)
DIC	5	4	Obstetric hemorrhage	40	5.4
Pulmonary edema	2	1.6	Hemorrhage + Fluid loading	50	3
Respiratory arrest	1	0.8	Eclamptic seizure	0	5
Sepsis	6	4.8	Invasive Interventions	33	13.6
MOFS	7	5.6	HELLP (n:4) Sepsis (n:1) Eclampsia (n:1) Hemorrhage (n:1)	42	14.4
Pulmonary embolism	1	0.8	Postpartum	100	<1
Thrombocytopenia	2	1.6	Sepsis	0	4
Acute renal failure	1	0.8	Preeclampsia	0	3
Intracranial Hemorrhage	2	1.6	Hemorrhage +DIC	50	10.5
Cardiopulmonary arrest	3	2.4	Eclampsia (n:1) Hemorrhage (n:1) HELLP(n:1)	66.7	8.6
Brain death	1	0.8	Intracranial Hemorrhage	100	11
Fulminant Liver failure	1	0.8	HELLP	100	<1
Acute respiratory distress syndrome	1	0.8	HELLP	100	13
Mortality	8	6.4	Table 13	100	4.3

DIC: Disseminated intravascular coagulation, ITP: immune thrombocytopenic purpura, MOFS: multiple organ failure syndrome, HELLP: hemolysis-elevated liver-low platelet

Table 4.

Table 4: Causes of mortality

	n	%	Explanation
Hemorrhage complications	4	50	DIC+ Cardiopulmonary arrest (n:1)
			DIC+intracranial hemorrhage+brain death (n:1)
			Pulmonary edema (n:1)
			MOFS (n:1)
HELLP complications	2	25	MOFS (n:2)
Eclampsia complications	1	12.5	Cardiopulmonary arrest (n:1)
Pulmonary embolism	1	12.5	Pulmonary embolism (n:1)
Total	8	100	

DIC: Disseminated intravascular coagulation, HELLP: hemolysis-elevated liver-low platelet, MOFS: multiple organ failure syndrome

[OP-101]

The efficiency of the first trimester 50 grams glucose tolerance test for detection of the gestational diabetes and the outcome of the pregnancy

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Objective: To evaluate the effectiveness of the first trimester 50 g glucose loading as a screening test for gestational diabetes mellitus (GDM).

Material and Methods: This study was conducted on pregnant women with low risk for diabetes mellitus. 50 g oral glucose load was given after measuring fasting plasma glucose level and another blood sample was obtained to measure 1 hour glucose level. 100 g three hour oral glucose tolerance test (OGTT) was performed for diagnostic test at 24-28 weeks of gestation when two glucose values are elevated. We used thresholds for defining elevated values, which have been proposed by Carpenter and Coustan (1).

Results: A total of 454 pregnant women were assessed in this study. Thirty four women (7.5%) were diagnosed to have GDM. Four hundred twenty women were constituted the non-diabetic group. In patients with GDM, age, weight, polyhydramnios and macrosomia rate were significantly higher than non-diabetic group. The discriminative power of the 50 grams glucose test in the first trimester was found significant ($p<0.05$) in gestational diabetic patients. The area under the curve was 0.927. The best cut-off value was 143 mg/dL.

Conclusion: Advanced maternal age and high body mass index (BMI) are the known risk factors for GDM (2, 3, 4). In our study, the mean weight of the pregnant women diagnosed with GDM was significantly higher. Yalçın et al. found GDM incidence as 6.6% in their study. We found GDM rate 7.5% (5). Macrosomia rate was found higher among the women with GDM compared to without GDM, difference was statistically significant ($p<0.05$). Polyhydramnios was detected statistically significantly more frequent in the patients who had GDM ($p<0.05$). Shoulder dystocia was seen only one and this patient did not have GDM. Although half of shoulder dystocias develop in the course of the deliveries of normal weight babies, incidence increases 10 fold among babies born >4000 g, risk increases 5 fold for each 250 g above 4000 g in case of maternal diabetes (6). Absence of shoulder dystocia in our study could be related with prevention of fetal macrosomia through strict glycemic control. Fethal metabolic complication was 8.8% in GDM group and this was statistically significant. In a study of Nahum et al. one hundred twenty-four normal gravidas had paired first- and early third-trimester (26-32 weeks) 1 hour oral glucose screening tests performed. And found that for patients with first-trimester glucose screening test values at or below 110 mg/dL, third-trimester glucose screening may be unnecessary (7). In our study we calculated the best threshold value as 143 mg/dL for gestational DM screening with 50 g OGTT in the first trimester. 50 g OGTT in the first trimester could discriminate GDM cases at significance level of $p<0.001$ Study showed that 50 g glucose loading test could be used for GDM screening between 11-14. gestational weeks. During this period, if 1. hour glucose threshold value is taken as 143 mg/dL, GDM cases can be detected with 11% false positivity and 85% sensitivity.

Keywords: Diabetic complications, gestational diabetes mellitus, 50 gram glucose loading test

[OP-102]

Comparison of vaginal and caesarean delivery in women with twin pregnancy

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Objective: The optimal mode of delivery for twin pregnancies is controversial. The clinicians shoud determine the mode of delivery according to fetal position, maternal and fetal status. It is questionable whether vaginal delivery increased maternal and neonatal morbidity in women with twin gestations. In the current study we compared maternal and neonatal outcomes for twin pregnancies delivered vaginally with those that had caesarean delivery.

Material and Methods: We retrospectively reviewed the patient charts of twin gestations that delivered in our clinic between January 2017 and December 2017. 2.8% of deliveries were twin gestations. Characteristics of the cohort including age, parity, gestational age at delivery and birthweight were recorded. Maternal outcomes included abruption, uterin atonia and postpartum hemorrhage. Neonatal outcomes included neonatal intensive care unit admission (NICU), 1 and 5-minute Apgar scores, sepsis, respiratory distress and death.

Results: Of the 349 twins, 62 (17%) had vaginal delivery. The age of caesarean group was significantly elder compared to vaginal group ($p<0.05$). Gestational age at delivery, parity, chorionicity of the pregnancies, first and second twin birtweight and 1 and 5-minute Apgar scores of first twin were not different between groups ($p>0.05$). The presentations of fetuses, presence of preeclampsia, presence of fetal growth restriction, oligohidramnios or fetal death affecting the one in twins, NICU admission of first and second neonate and neonatal complications of first and second twins differ dignificantly between groups. The risk of caesarean section was increased 3.9 fold in patients with fetal growth restriction in one of twins, 8.2 fold in patients that had cephalic-non-cephalic presentation and 9.3 fold in patients with the first child in non-cephalic position.

Conclusion: Maternal complications in twin gestations during delivery have not been influenced by the mode of delivery. Although lower Apgar scores of second twin were seen in vaginal delivery group, neonatal complications were more common in caesarean group. Vaginal delivery in twins is a safe and reasonable option in appropriately selected cases and in the presence of experienced obstetricians.

Keywords: Twin pregnancies, mode of delivery, vaginal delivery

Table 1.

	Vaginal delivery (n=62)	Caesarean delivery (n=287)	p value
Age (years)	27.6±7.9	29.5±5.9	0.039
Gestational age at delivery (weeks)	33.4±4.8	34.0±4.1	0.313
Parity	1.2±1.7	1.1±1.2	0.453
1st fetus birthweight (grams)	2316.4±2717.1	2133.7±1092.3	0.388
2nd fetus birthweight (grams)	1849.8±784.6	2026.0±659.6	0.067
1st neonate 1-min APGAR score	6.7±2.9	6.9±2.0	0.597
1st neonate 5-min APGAR score	7.9±3.2	8.1±2.0	0.544
2nd neonate 1-min APGAR score	6.0±3.2	6.7±2.0	0.035
2nd neonate 5-min APGAR score	7.3±3.6	8.0±2.0	0.041
Chorionicity Monochorionic Dichorionic	 10 (16.1) 52 (83.9)	 80 (27.9) 207 (72.1)	0.055

Table 2.

	Vaginal delivery group (n=62)	Caesarean delivery group (n=287)	p value
Presentation of fetuses Cephalic-cephalic Cephalic-noncephalic Non-cephalic	 42 (67.7%) 13 (21.0%) 7 (11.3%)	 75 (26.1%) 99 (34.5%) 113 (39.4%)	0.000
Presence of preeclampsia Present Absent	 1 (1.6) 61 (98.4)	 31 (10.8) 256 (89.2)	0.023
Complications seen in one of twins absent fetal death IUGR Oligo	 58 (93.5) 3 (4.8) 1 (1.6) 1 (1.6)	 240 (83.6) 6 (2.1) 37 (12.9) 3 (1.0)	0.045
1st neonate NICU Absent Present	 53 (85.5) 9 (14.5)	 145 (50.5) 142 (49.5)	0.000
2nd neonate NICU Absent Present	 51 (82.3) 11 (17.7)	 137 (47.7) 150 (52.3)	0.000
1st neonatal complications Absent Death Respiratory distres Sepsis	 46 (74.2) 6 (9.7) 10 (16.1) 0 (0)	 140 (48.8) 8 (2.8) 138 (48.1) 1 (0.3)	0.000
2nd neonatal complications Absent Death Respiratory distres Sepsis	 40 (64.5) 10 (16.1) 12 (19.4) 0 (0)	 130 (45.3) 11 (3.8) 145 (50.5) 1 (0.3)	0.000

[OP-103]

Is it possible to perform hysterectomy with less morbidity using bipolar scissors in patients with placenta percreta? A retrospective comparative study

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Objective: Placenta acreta is characterized by invasion of the placenta into the myometrium and serosa, and rarely into the organs such as bladder and urethra. Obstetric hemorrhage from placenta accreta has become the major cause of maternal mortality and morbidity in recent years. Cesarean hysterectomy is a surgical procedure, which may lead to abundant bleeding by itself such as placenta accreta. In recent years, studies have focused on the techniques reducing intraoperative bleeding. Some of these techniques includes preoperative angiographic embolization of the internal iliac veins, insertion of transient balloon catheters, and bulldog clamp application. According to our personal observations, we believe that amount of bleeding, need for transfusion, operational time, and length of stay in hospital are lower with the operations performed utilizing these tools. Therefore, herein we aimed to retrospectively compare such cesarean hysterectomies with the hysterectomies using conventional devices, and to determine whether this method has advantages over the other methods.

Material and Methods: Hysterectomy operations performed due to placental insertion anomalies in pregnancies over 24 weeks of gestation in our clinic between 2006 and 2018 were retrospectively studied. Data were obtained from the archives and automation system of the hospital. The study included a total of 93 patients whose all data were available. The patients were divided into two groups as the patients who underwent standard conventional hysterectomy (Group 1) and those operated using new generation bipolar sealing and cutting tools (Group 2). The data were statistically analyzed.

Results: When both groups were compared in terms of demographics; no statistically significant difference was found in age, gravida, parity, gestational week, birth weight, body mass index (BMI), and number of previous cesarean sections ($p<0.05$) (Table 1). Operation time, number of intraoperatively transfused erythrocyte suspensions, total number of fresh frozen plasma transfused, total amount of fluid from the abdominal drainage, and total duration of hospitalization were statistically lower in bipolar-scissors hysterectomy group ($p<0.05$), while durations of postoperative stay in intensive care unit were similar ($p=0.202$) (Table 2). Abdominal incisions were umbilical median, while uterus incisions were fundal vertical in entire Group 2. These incisions were made in 37 of 60 patients in Group 1 ($p<0.05$). Rate of hypogastric artery ligation was significantly low in Group 2 ($p=0.013$), while rates of bladder repair, follow-up in the intensive care unit, and postoperative infection were similar among the two groups (all p values >0.05) (Table 3).

Conclusion: There are diffuse vessels between the bladder and the uterus especially because the placenta is cervical localized and

invaded up to the peritoneum. Heavy bleeding is inevitable on attempts to sharply separate the peritoneum and the uterus. No bleeding is expected during cutting with bipolar scissors, because both these tools are blunt ended and seal the vascular structures during dissection. In addition, not suturing the tissues make an important contribution to reduce operational time. Using bipolar scissors in cases of placenta percreta histerectomy can reduce bleeding and complications.

Keywords: Bipolar sealing, cesarean hysterectomy, cutting scissors, placenta percreta

Table 1. Comparison of the group demographics

	Conventional hysterectomy group (n:60)	Bipolar-scissors hysterectomy group (n:33)	P
Age	32,73±3,26	34,40±3,92	0.087
Gravida	4.70±1.41	4.13±1.35	0.291
Parity	3.00±1.11	2.77±1.15	0.619
Gestational week	34.43±4.51	34.61±3.53	0.876
Birth weight	2641.00±888.09	2554.65±787.81	0.774
BMI (kg/m²)	29.00±4.24	29.83±3.06	0.767
Number of previous cesarean sections	2.00±0.87	2.64±1.12	0.044

BMI: Body mass index

Table 2. Comparison of intraoperative and postoperative findings

	Conventional hysterectomy group (n:60)	Bipolar-scissors hysterectomy group (n:33)	P
Operational time (minutes)	139.88±19.10	86.36±15.14	0.001
Number of erythrocyte suspensions intraoperatively transfused (unit)	3.40±1.89	1.72±1.12	0.001
Number of total erythrocyte suspensions transfused (unit)	4.91±2.13	3.06±1.47	0.001
Number of fresh frozen plasmas transfused (unit)	2.40±1.43	1.66±1.02	0.034
Total amount of fluid from abdominal drainage (cl)	953.75±655.06	329.28±199.13	0.003
Number of days in postoperative intensive care unit	0.56±0.83	0.36±0.48	0.202
Total duration of hospitalization (days)	4.80±2.57	2.70±1.36	0.001

Table 3. Comparison of intra- and postoperative nonparametric findings

		Conventional hysterectomy group (n:60)	Bipolar-scissors hysterectomy group (n:33)	P
Type of abdomen and uterus incisions	PH+T	20	0	0.001
	UMI+T	3	0	
	UMI+V	37	33	
Hypogastric Artery Ligation	No	47	32	0.013
	Yes	13	1	
Bladder repair	No	44	28	0.156
	Yes	16	5	
Follow-up in intensive care unit	No	36	21	0.453
	Yes	24	12	
Postoperative infection	No	56	33	0.167
	Yes	4	0	

PH: Phannenstiel, T: Transverse, GAM: umbilical median incision

[OP-104]

Impact of timing on wound dressing removal after cesarean delivery

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Objective: Evaluate the impact of dressing removal at 24 hours versus 48 hours on wound healing and incidence of surgical site infections following low-risk cesarean delivery.

Material and Methods: This multicenter randomized controlled study included patients aged 18-44 years with low-risk term, singleton pregnancies. Randomization was done weekly. Cesarean delivery indications, such as scheduled nonlabored primary cesarean delivery for fetal malpresentation, suspected macrosomia, maternal request, placental anomaly, and abnormal/indeterminate fetal heart tracing without labor were included. All operations were carried out in a similar technique. The additional treatment, serous discharge, erythema, purulent exudate, separation of deep tissues, isolation of bacteria, stay in hospital >14 days (ASEPSIS) score for wound healing assessment was utilized.

Results: The groups' demographics including age, gravity, parity, and body mass index were not statistically different. American Society of Anesthesiologists scores between groups were not statistically significant, either. Length of hospital stay was shorter in the 24-hour group than the 48-hour group, 2.0±0.4 days and 2.1±0.5 days, respectively. Incidence of wound complications was similar in the groups at discharge and the first-week evaluation. At 6 weeks post surgery, wound complications were significantly less in the 48-hour group (3.9%) compared with the 24-hour group (9%; p=0.002).

Conclusion: Our study suggests that removal of the wound dressing at 48 hours compared to 24 hours postoperatively reduced wound complications and patient complaints about wounds in the obstetric population with scheduled cesarean delivery.

Keywords: Dressing, healing, cesarean section, incision

[OP-105]

Pregnancy of patients with idiopathic thrombocytopenic purpura: Maternal and neonatal outcomes

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Objective: Thrombocytopenia occurs at 7% of pregnant women. 70-80% of cases are due to gestational thrombocytopenia. Idiopathic thrombocytopenic purpura (ITP) which is an autoimmune disease with autoantibodies against platelet membrane causing platelet destruction in reticuloendothelial system must be considered in differential diagnosis. ITP incidence at pregnancy is 1-2 at 1000 and it forms 3-5% of thrombocytopenias encountered at pregnancy, though it is the most common cause of thrombocytopenias in early pregnancy and it can cause severe thrombocytopenia. Antiplatelet antibodies can cross the placenta and cause thrombocytopenia at newborn. Skin ulcer, petechia, cleft palate, hydrocephalus, intraventricular hemorrhage, cardiac anomaly may be seen at newborn. Maternal treatment does not effect newborn platelet count, risk factors for neonatal thrombocytopenia are maternal history of splenectomy, maternal platelet count less than $50x10^3/\mu L$, neonatal thrombocytopenia in previous pregnancies of mother. Aim of our study is to assess management of ITP in pregnancy, and to investigate postpartum and neonatal outcomes.

Material and Methods: This retrospective study is conducted in our center including 89 pregnant patients with ITP followed between October 2011 and January 2018. Records of patients has been investigated, missing data was completed via phone calls with patients. Other causes of thrombocytopenia were excluded. Age, obstetric history, ITP diagnose and follow up period, presence of splenectomy, platelet count during pregnancy and after birth, treatment during pregnancy, way of delivery, need for thrombocyte or erythrocyte replacement, weight and platelet count of newborn, sign of hemorrhage, fetal congenital anomaly, maternal prognosis after birth were assessed. SPSS 23.0 program is used for statistical analysis.

Results: Mean platelet count of patiens was 98000, ranging between 19000 and 622000. Mean platelet count of newborns was 226000. 36% of patients had chronic ITP. 28% of treatment was for delivery preparation. Treatment was steroid for 12.6%, platelet transfusion for 9.2%, steroid and platelet transfusion for 8%, steroid and platelet transfusion and IVIG for 13.8% of patients. 6% of patients had splenectomy. When patients are classified in two groups as having ITP and chronic ITP, no significant difference is seen in respect to parity, timing of delivery, birthweight, preoperative and postoperative platelet counts and hemoglobin values, and newborn platelet counts. Way of delivery, antenatal bleeding and congenital anomaly rates were also similar. Timing of treatment were different between groups. Patiens whose diagnosis were established during pregnancy were mostly treated for preparation of delivery. Treatment modalities were similar.

Conclusion: Probability of severe thrombocytopenia at delivery is higher in ITP patiens who were diagnosed during pregnancy when compared to the patients who got prepregnancy diagnosis. Timing of treatment during pregnancy in our study is consistent with this data. Rate of severe thrombocytopenia without hemorrhage in newborn is 8.3% in literature and 7.8% in our finding. ITP and chronic ITP groups were similar in respect to neonatal thrombocytopenia. ITP is important for both mother and newborn. Patients should be followed closely in cooperation with hematology department.

Keywords: Idiopathic thrombocytopenic purpura, neonatal thrombocytopenia, pregnancy, thrombocytopenia

[OP-106]

Management of 42 patients with plasenta previa totalis

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Objective: In Turkey the rate of caesarean section (CS) was 21% in 2002, it is 51% in 2014. Parallel to increase on the rate of CS, the number of complication also increased. One of the most important risk factors for placenta previa totalis is patient's previous cesarean. There is an increase in placenta previa totalis cases in our region where the number of pregnancy and CS is relatively high. Invasion anomalies are more likely to occur in these patients.

Material and Methods: Total of 42 placenta previa totalis cases were included to the study which were treated in our hospital during last 6 months of 2016. The author of this study is the primary surgeon of all the cases. Patients with over 24 gestational age were included in the study, and all of the patients had at least one previous CS prior to this one. Two units of erythrocyte suspension were reserved for each patient prior to operation. Spinal anesthesia was prefered to perform initially. Pfannenstiel incision was applied to all patients. A transverse incision was made in the uterus.

Results: The average age of the patients was 31.69±5.15, gravida 3.9±1.54, and parity 2.76±1.37. Spinal anesthesia was applied to 88% (n=37) of patients whose gestational week was 35.6±1.3. The rest of the data of the patient is given in Table 1. 61.9% (n=26) of the patients were anterior totalis while 38.1% (n=16) of them were posterior totalis. No invasions were detected in 2 patients. Average operation time was 49.46±14.93 minutes from skin to skin and uterus was preserved in all of the patients. Hypogastric artery ligation was not performed and balloon tamponade was not used. The postoperative hospital stay was 2.12±0.45 in average.

Conclusion: In cases of placenta previa totalis, cesarean hysterectomy is recommended if the patient has invasion anomaly too. With the increase in the number of these type of patients, there is a need for a new research whether CS can be made without hysterectomy so that patients life would no be risked. If hysterectomy is not performed to theses patients which are usually at their early thirties they can maintain both their fertilities and normal menstrual cycles.

Keywords: Plasenta previa totalis, previous cesarean, without hysterectomy

Table 1. Patient data

	Mean±standart deviation (min-max)
Age of the patient	31,69±5,15 (22-40)
Gravida	3,90±1,54 (2-9)
Parity	2,76±1,37 (1-8)
Gestational age	35,6±1,3 (31,2-38,4)
Previous CS	2,36±1,12 (1-4)
Preop Hemoglobin	11,43±1,52 (8,32-14,44)
Preop Hematocrit	34,65±3,62 (26,44-41,04)
Postop Hemogram	10,36±1,39 (7,42-14014)
Postop Hematocrit	31,11±3,66 (23,24-41,82)
Blood needed (Eritrosit susp)	0,52±0,943 (0-3)
APGAR 1. minute	5,52±1,36 (3-9)
APGAR 5. minutes	7,93±1,045 (6-10)
Duration of hospitalization	2,12±0,45 (2-4)

[OP-107]

Evaluation of anxiety and depression levels in intrauterine pregnancy loss

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Objective: This study aimed to evaluate the level of anxiety and depression immediately and after the 12th week of their miscariage. We also investigated the effects of age, their previous pregnancy losses, and number of living children to anxiety and depression level.

Material and Methods: The study was carried out using Hospital Anxiety Depression Scale (HAD) and Beck Depression Inventory (BDI) with a face-to-face interview with 121 intrauterine pregnancy loss patients admitted to Bozok University Research Hospital Obstetrics and Gynecology Clinic between July 2016 and October 2017. Pregnancies with maternal mental retardation and pregnancies requiring termination of pregnancy due to maternal reasons, elective curettage, and anembryonic pregnancies were not included in the study. Pregnancies which are terminated because of medical reasons such as anhydramnios, fetal anomalies, etc. were taken into consideration regardless of the gestational week.

Results: While the anxiety and depression levels after 12 weeks were significant, the prompt symptoms of anxiety and depression were not significant. There was a significant relationship between gestational week and anxiety and depression but no significant relationship with the number of living children, the age of the patient and the previous pregnancy losses affecting the level of anxiety and depression.

Conclusion: According to previous studies which resulted as emotional reactions to pregnancy losses in the early period of pregnancy were not detected in our study. The results we found in the late period were similar. The relationship between gestational week and anxiety depression was not similar to previous findings. The reason for the difference in our findings might be our human basal reactions to pregnancy losses that can reflect our behavior of our society structure, religious beliefs and morals.

Keywords: Anxiety, depression, miscarriage, pregnancy loss

Table 1.

		Mean	P	
HAD Scale Anxiety level Early period	Normal	58,30	0,303	
	Anxiety	64,31		
HAD Scale Anxiety level Late period	Normal	57,60		0,021*
	Anxiety	75,03		
HAD Scale Depression level Early period	Normal	58,40	0,245	
	Depressive	65,60		
HAD Scale Depression level Late period	Normal	58,11		0,036*
	Depressive	75,00		
BDI Early period	Normal	59,30	0,414	
	Mild	55,31		
	Mean	68,38		
	Severe	60,83		
BDI	Normal	58,63	0,524	
	Mild	64,21		

[OP-108]

Factors effecting cesarean complications in patients with placenta previa

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Objective: Placenta previa may cause massive bleeding at antenatal, intrapartum or postpartum periods and is one of the leading causes of maternal morbidity and mortality. Anterior or posterior location of plasenta previa can change cesarean technique and management of the operation. Aim of our study is to assess factors increasing intraoperative complications in patients with placenta previa, investigate the significance of anterior placenta location independent of other factors, evaluate placentation and bleeding especially after previous uterine surgery.

Material and Methods: This study is conducted retrospectively in our center including 83 patients followed with placenta previa between 2012 and 2015. Placenta location, presence and depth of myometrial invasion, previous uterine surgery, type of uterine incision, amount of intraoperative bleeding, need of blood transfusion, balloon tamponade, uterine hemostatic suture, ligation of hipogastric/uterine artery, need for hysterectomy, hemogram parameters of mother and newborn are assessed. Intraoperative bleeding, postoperative hemoglobin, need of blood transfusion and other parameters are compared between anterior and posterior placenta previa.

Results: As for location of plasenta previa, 46.9% were posterior total, 21.6% were anterior total, 19.2% were posterior marginal, 12% were anterior marginal. Mean age of the patients was 31.9 which was smilar between groups. 34% of patiens had plascental invasion. 37% had previous cesarean section once or more times, intraoperative bleeding amount was lower than 1000 cc in 72.3% of patients, 15.6% of patients necessitated more than 2 units of transfusion. Types of placenta did not cause difference in antenatal bleeding. Need for blood transfusion was significantly higher in anterior placentation. Postoperative hemoglobin was significantly higher in posterior placenta group, while hemoglobin difference was higher in anterior placenta group. Hemoglobin values were similar after blood transfusion, which demonstrated an effective replacement intraoperatively or postoperatively. Placental invasion anomalies and previous uterine surgery were significantly higher in patients with anterior placentation. As anticipated, more than 2 units of blood transfusion were significantly higher if invasion anomaly existed. There was no relationship between uterine incision and hemoglobin values, however more than 2 units of blood transfusion and hysterectomy rates were significantly higher for classical insicion when compared to lower segment transvers incision. Our study is consistent with previous studies depicting increasing number of previous cesareans increase probability of placental adherence leading higher rates of blood transfusion and hysterectomy. If the patients with previous cesarean or invasion anomaly were excluded or all incisions were same, there would not be significant difference between patients with anterior and posterior placentation in respect to hemoglobin values and blood transfusion. This result is inconsistent with study of Baba et al., who concluded anterior placentation irrespective of other risk factors cause much more bleeding. Extent of the study population may effect the results.

Conclusion: Placenta previa, is an important condition in which placenta location, presence and depth of invasion should be assessed and timing of delivery should be planned with appropriate preparation of blood products before delivery.

Keywords: Anterior placentation, cesarean section, placenta accreta, placenta previa

[OP-109]

Incidence of early postpartum bacteriuria among women who had cesarean delivery: A prospective clinical study

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Objective: Literature regarding early bacteriuria in puerperium is limited. We aimed to evaluate the incidence of early asymptomatic bacteriuria among women who had cesarean delivery and identify the risk factors.

Material and Methods: One hundred ninety-three parturients were recruited among pregnant women who had indication for cesarean delivery. One hundred seventy-five of them were included in the analysis. Women with; urinary anomalies, urinary operation history, positive urine cultures prior to delivery, prolonged rupture of membranes and any antibiotic usage before and during labor were excluded. First urine cultures were obtained just after the ureteral catheter has been applied, prior to cesarean section. Second urine cultures were obtained prior to discharge. Eighteen women denied to give 3rd day urine culture. All women were informed about the control on the fifth day and invited to hospital. Any woman who did not attend the appointment were called by infection disease nurse and were questioned about their complaints, especially the cesarean incision. Demographic data, and information about obstetrical history, urogenital infection background during pregnacy, anemia, gestational diabetes, prolonged urinary catheter application was recorded. Data regarding management of labor, number of digital vaginal examination and decision of cesarean delivery was collected prospectively.

Results: Eight of 175 women had a positive urine culture on 3rd postpartum day. When urine culture positive and negative groups were compared to demographic data, obstetric history and urogenital infections during pregnancy statistical significance was not determined. Timing of cesarean delivery decision in the active phase of labor or in the second stage of labor did not show difference for bacteriuria between groups. We detected that among women who had digital examination 3 or less, had 2.2% early bactreiuria and who had digital examination 4 or more, had 11.3% early bactreiuria. Four or more digital vaginal examination prior to cesarean delivery was corralated significantly to early postpartum bacteriuria (p=0.019).

Conclusion: Labor and vaginal birth were previously defined as bacteriuric events. Still, it is well known that urinary catheterization is related to postpartum urinary system complications. Asymptomatic bacteriuria does not need to be treated in healthy adult women but in pregnant women it needs attention and should be treated. Treatment suggestions regarding early bacteriuria in puerperium is limited. If we had revealed the data, defining how many women with asypmtomatic bacteruria had complicated with urinary infection, our study would have been more powerfull. Our study aimed to evaluate the incidence of early asymptomatic bacteriuria among women who had cesarean delivery and identify the risk factors. Yet, we found out that iatrogenic attitudes, such as repeated number of digital vaginal examination during labor, facilitates asyptomatic bacteriuria in women who had cesarean delivery.

Keywords: Asymptomatic bacteriuria, pregnancy, cesarean delivery

[OP-110]

Evaluation of vaginal delivery reliability in twin pregnancies with the first twin cephalic presentation

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Objective: The aim of this study to evaluate planned vaginal delivery reliability by comparing the results of planned vaginal delivery with planned cesarean delivery in the twin pregnancies with first twin cephalic presentation.

Material and Methods: Obstetrics and early neonatal outcomes of pregnant women who applied between January 2013 and December

2014 to the University of Health Sciences, Diyarbakır Gazi Yaşargil Training and Research Hospital, with the first twin cephalic presentation and delivered with planned vaginal delivery or planned cesarean delivery were compared retrospectively.

Results: Between the dates of the study, there had been 45166 births and 1.92% (n=869) of them were twin pregnancies. 30.16% (n=89) of these 295 pregnancies presenting the study criteria were in the planned vaginal delivery group while the remaining 39.83% (n=206) were in the planned cesarean delivery group. In the planned vaginal delivery group, all the first twins were delivered with vaginal delivery, while for the second twins 82.02% (n=73) were delivered with vaginal deliveries, and the remaining 17.97% (n=16) with cesarean delivery. In the planned cesarean delivery group, all of the first and second twins were delivered with cesarean delivery. In the planned vaginal delivery group, the rate of Early Neonatal Mortality rate (ENMR) was 22.47% (n=2) while it was 9.70% (n=2) in the cesarean delivery group; all of the deaths in both groups occurred for pregnancies under 37 weeks of gestation.

Conclusion: In our study, neonatal outcomes between planned vaginal delivery and planned cesarean delivery were similar in term pregnancies with first twin cephalic presentation, whereas adverse neonatal outcomes were increased in the planned vaginal delivery group in preterm pregnancies.

Keywords: Twin pregnancy, vaginal delivery, cesarean delivery, early neonatal mortality

[OP-111]

Relationship between first trimester 25 hidroxy D3 vitamin and second trimester femur lenght; their effect of birth weight, birth lenght when it is lower than 20 ng/mL or higher than 20 ng/mL

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Objective: Vitamin D deficieny is a worldwide problem. On pregnancy it is very important problem for fetal growth and has been linked a lot of short term and long term problems such as preeclampsia, intaruterin growth restriction, small-for-gestational age, skeletal problems, diabetes and asthma. Importance of vitamin d levels on pregnancy bone mineralization and fetal growth is known. There is a positive association between birth lenght and birth weight. During pregnancy and lactation, evident changes in maternal vitamin D and calcium metabolism occur to need for fetal bone mineral expansion. At first trimester fetus accumulates 2-3 mg vitamin D daily, but it accumulates double rate at last trimester for skeleton. Pregnant woman is increasing calcium absorbtion at early pregnancy but maximum absorbtion is at last trimester. A lot of studies showed that there is a relationship between newborn size and vitamin D levels. Daily vitamin D intake is a predictor for fetal birthweight.

Material and Methods: We followed up pregnants for two years in our clinic. One hundred fifty-four live birth reviewed retrospectively. Statistical analysis was done by MedCalc statistical analysis software version 12.3. Distribution of variables assesses by Kolmogorov-Smirnov test. Total serum 25 hydroxy vitamin D levels subclassifed to 3 group by concentration. Serum vitamine D levels between 1-10 ng/mL classifed Group 1. Serum vitamin D levels between 10.01-24.99 ng/mL classifed Group 2 and lastly serum vitamin D levels over 25 ng/mL classified as Group 3. Comparison of continious variables which distributed normally was done by ANOVA test and for the non-normal distributed variables by Kruskal-Wallis test.

Results: Total records of 154 live birth reviewed retrospectively. Serum vitamine D levels subclassifed to 3 group by concentration. Serum vitamine D levels between 1-10 ng/mL classifed Group 1 (n=45). Serum vitamin D levels between 10.01-24.99 ng/mL classifed Group 2 (n=76) and lastly serum Vitamin D levels over 25 ng/mL classified as Group 3 (n=33). This subgroups were determined by Mayo Medical Labarotories Reference Ranges (Kennel KA, Drake MT, Hurley DL. Vitamin D Deficiency in Adults: When to Test and How to Treat. Mayo Clinic Proceedings. 2010;85(8):752-758. doi:10.4065/mcp.2010.0138). Femur length, birthweight and neonatal length were compared between those three groups. Femur length was longer in the group 1 than Group 2 and 3, although this difference was not statistically significant (p=0.702). Neonatal body length was not different statistically significant (p=0.81). Birthweight was heavier in Group 3 than Group 1 and 2, otrherwise this difference was not statistically significant (p=0.424).

Conclusion: In conclusion, although we did not observe any associations of maternal 25-(OH)D with fetal growth except group one. Femur lenght is longer in this group but difference was not statistically significant.

Keywords: Fetal development, pregnancy, ultrasonography, vitamin D

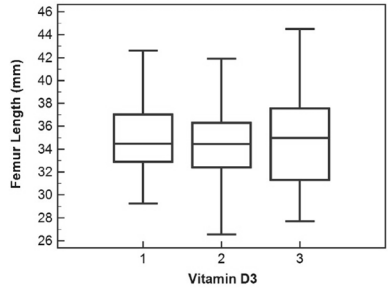


Figure 1. Vitamin D levels and femur lenght

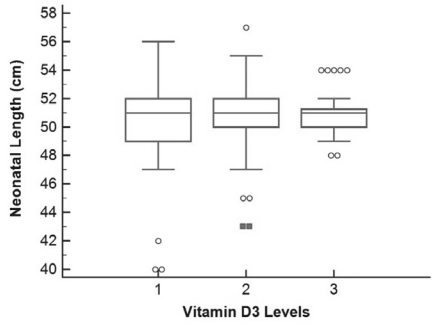


Figure 2. Vitamin D levels and neonatal lenght

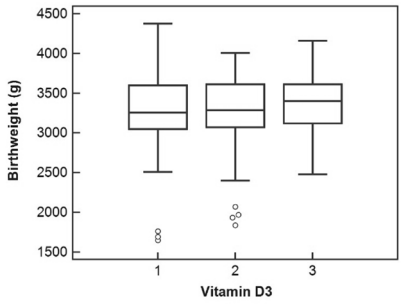


Figure 3. Vitamin D levels and birthweights

Table 1.

	Group 1	Group 2	Group 3
25 OH vitamin D (ng/mL)	8±2.756 (4.2-9.9)	17.05±3.75 (10.6-24)	32.9±8.7 (24-139)
Femur lenght (mm)	35.151±3.32 (29.26-42)	34.59±2.81 (26.56-41.9)	34.71±3.93
Birth weight (g)	3230±576 (1650-4375)	3260±468.60 (1840-4010)	3370±374.34 (2480-4160 g)
Neonatal length (cm)	51±3.19 (40-56)	51±2.3 (43-57)	51±1.69 (48-54)
Comparison of 3 different 21-OH vitamin D3 group			

[OP-113]

Evaluation of primary symptoms in women with placental abruption

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Objective: Placental abruption, classically defined as a premature separation of the placenta before delivery, approximately 0.4-1% of pregnancies are complicated by placental abruption, and is an important cause of perinatal mortality and morbidity. Our aim is to evaluate the associations between primary symptoms and the outcomes of placental abruption.

Material and Methods: We carried out a retrospective study of 57 cases of placental abruption between November 2015 and March 2018 at Obstetrics and Gynecology Department of Science Health University, Ümraniye Training and Research Hospital. The 57 subjects were classified into two groups according to primary symptoms: 34 cases of the vaginal bleeding group and 23 cases of the abdominal pain group. The clinical features, maternal and neonatal outcomes were compared between two groups.

Results: Age, gravida and parity of patients were similar in between two groups. Gestational age at delivery were comparablein between two groups (p=0.23). Both fetal and maternal outcomes were similar in between abdominal pain and vaginal bleeding group in terms of intrauterine fetal death (p=0.17), umblical arterial pH (p=0.08), Apgar score at 5 min (p=0.39). Fibrinogen levels were similar in two groups (p=0.229), whereas d-dimer levels were significantly higher in abdominal pain group (p<0.001). Hemoglobin levels descent through preoperative to postoperative period were comparable in between two groups (p=0.77). Blood transfusion rates were similar in two groups (p=0.104).

Conclusion: This classification based on primary symptoms was found not to be useful for predicting both maternal and neonatal outcomes of placental abruption.

Keywords: Abdominal pain, placental abruption, vaginal bleeding

[OP-114]

The comparative incidence of rectovaginal Group B *Streptococcus* between Turkish pregnants and Syrian pregnants living in Turkey

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The objective of this study was to determine the prevalence of maternal group B Streptococcal (GBS) colonization in Turkish and Syrian pregnants, compare risk factor data related to GBS colonization and examination of antibiotic resistance patterns of GBS. For this purpose, a prospective prevalence study of 518 pregnant women, 363 Turkish pregnant and 155 Syrian pregnant, who applied to the Health Sciences University Antalya Training and Research Hospital between May-December 2017, was carried out. Swabs from the lower vagina and rectum were obtained between 32 weeks and older gestation and cultured on selective media. Risk factor data were obtained by patient interview and patient follow-up form review. Group B streptococcal prevalence was 11% in Turkish citizens, 9.7% in Syrian citizens. There was no statistical difference between two groups in the GBS colonization frequency (p=0.756). There was no association of GBS colonization with previously identified risk factors, such as maternal age, BMI, gravida, parity, gestational week, marital year, smoking, educational status, antibiotic use in pregnancy, early membrane rupture or chronic disease. When the antibiograms of the patients were examined, in Turkish citizens resistance of erythromycin to 12.5%, clindamycin to 27.5%, levofloxacin to 7.5% and moxifloxacin to 5% was found. In Syrian citizens, 25% of the pregnant women had erythromycin resistance and 50% of the patients had clindamycin resistance, there was no resistance to levofloxacin and moxifloxacin. At TC citizens and Syrian citizensall GBS subgroups were 100% sensitive to penicillin, linezolid and tigecycline. Penicillin, linezolid and tigecycline were highly susceptible to GBS subgroups of Turkish citizens and Syrian citizens, similar to studies conducted abroad and in our country. This study provides baseline data for the creation of community-based GBS disease prevention protocols.

Keywords: Rectovaginal Group B *Streptococcus*, Syrian pregnant, comparative incidence

[OP-115]

Value of *in vitro* acoustic radiation force impulvalue of *in vitro* acoustic radiation force impulse application on uterine adenomyosisse application on uterine adenomyosis

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Objective: Adenomyosis is the presence of endometrial glandular and stromal tissue in myometrium. This phenomenon can be the cause of excessive bleeding and menstrual pain in premenopausal women. Diagnosis of adenomyosis may present difficulty with conventional methods such as ultrasound and magnetic resonance imaging. Frequently, diagnosis is accomplished retrospectively on the hysterectomy specimen.

Material and Methods: This is a prospective case control study done *in vitro* on 90 patients' hysterectomy specimens. Acoustic radiation force impulse technique (ARFI) and color elastography were used to determine elasticity on hysterectomy specimens of patients undergoing indicated surgeries. From histopathological examinations two groups were formed as study group (n=28 - with adenomyosis) and control group (n=62 - without adenomyosis).

Results: Elasticity measurements of tissue with adenomyosis are observed to be significantly higher than measurements of normal myometrial tissue ($p<0.01$). Uterine fibroids are found to have higher values on ARFI study compared to normal myometrial tissues ($p<0.01$).

Conclusion: Findings lead to conclusion that adenomyosis tissue is significantly softer than normal myometrium. ARFI was found to be beneficial in differentiating myometrial tissue with adenomyosis from normal myometrial tissue. It is found to be feasible and beneficial to implement ARFI as daily routine for gynecology practice for diagnosis of adenomyosis.

Keywords: Elastosonography, adenomyosis, acoustic radiation force impulse, ultrasound

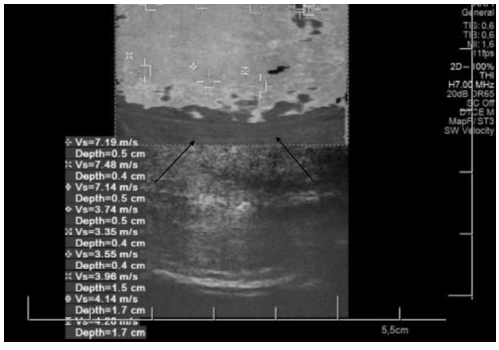


Figure 1. Adenomyosis ARFI measurements

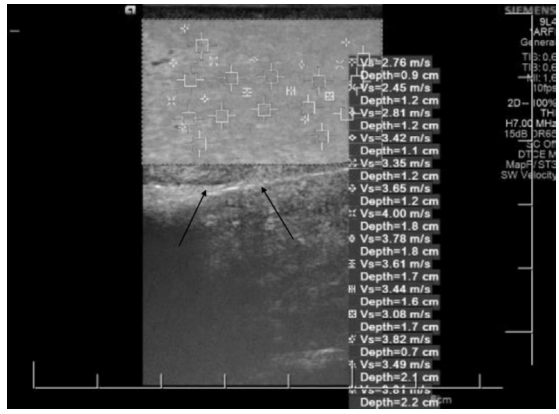


Figure 2. Normal tissue ARFI values

Table 1. ARFI results of myometrium for study and control group

	Study group n=28	Control group n=62	p
Minimum myometrial reading	3.62±0.97	2.87±0.85	<0.01
Mean myometrial reading	4.04±1.06	3.22±0.90	<0.01
Maximum myometrial reading	4.46±1.21	3.57±1.00	<0.01
Comparison of the results for adenomyosis and normal myometrial tissues			

[OP-116]

The relationship between serum lactic acid levels and pregnancy results in hyperemesis gravidarum

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Objective: Long term loss of stomach contents in hyperemesis gravidarum would lead to hypochloremic metabolic alkalosis. In cases of metabolic alkalosis with acute compensation, the repository center would step in, while in cases of chronic compensation, the kidneys would become involved. The chemoreceptors that control ventilation during acute compensation reduces ventilation as a response to the increase in pH level; this way, pCO_2 and H+ formation is elevated, and the body tries to lower the pH down to normal. Compensation is ensured by respiratory acidosis. Respiratory acidosis presents with low oxygen, i.e. hypoxia. The foregoing study is aimed at assessing the relation of pregnancy-related complications which present in

the later weeks of pregnancy with hypoxia that occurs in the same period in pregnant women suffering from hyperemesis gravidarum, by measuring the maternal serum lactating level.

Material and Methods: The present involves a total of 100 pregnant women including 50 patients diagnosed with hyperemesis gravidarum in the first trimester (<14 weeks) of their pregnancies and 50 healthy patients who were not diagnosed with this condition (as the control group), who consulted to and were followed up by the Gynecology and Obstetrics Clinic of Ankara Training and Research Hospital between May 2015 and May 2016. All patients were followed up until they were full term, and the pregnancy-related complications that presented during the follow-up as well as early neonatal considerations were recorded.

Results: The study has yielded no meaningful statistical difference between the groups in terms of demographical characteristics (age, BMI, gravida, parity, history of abortions, number of curettages, number of previous deliveries and method of delivery). A meaningful difference was observed between the study group and the control group in terms of low blood gas pO_2 levels and elevated lactate levels in patients who turned out to have high urinary ketone levels when they were examined in their first trimesters ($p<0.001$, $p<0.001$, $p<0.001$). No meaningful difference was observed between the control group and the study group in terms of oligohydramnios, polyhydramnios, GDM, GHT and IUGR development in their antenatal follow-ups ($p=0.320$). It was observed that the birth weights of the babies delivered by patients with high vomiting numbers and weight loss were meaningfully low ($p=0.002$). No meaningful difference was observed between the study group and the control group in terms of delivery method, delivery week and Caesarean-section delivery indications ($p=0.822$, $p=0.538$, $p=0.049$). The study identified a meaningful difference in the study group as opposed to the control group in terms of newborn blood gas pH levels and 1 min. apgar score values ($p<0.001$, $p=0.022$).

Conclusion: The study indicates that cases of hypoxia, high lactate levels and elevated oxidant agents that present with compensated metabolic alkalosis which occurs in patients who have developed severe hyperemesis gravidarum have negative effects on a newborn's weight apgar score and blood gas. Nevertheless, further research involving greater number of patients is required in order to show the implications of hyperemesis gravidarum on pregnancy results.

Keywords: Hyperemesis gravidarum, pregnancy complications, oxidative stress

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[OP-117]

Platelet and endothelial cell adhesion molecule expression in pregnant women with preeclampsia

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Objective: Despite the fact that preeclampsia (PE) is one of the most important health problems which affect pregnant wome, the etiopathogenetic factors which lead to the illness are still yet to be known. Hereby in this study, we have aimed to investigate the expression levels of the Platelet and Endothelial Cell Adhesion Molecule, PECAM-1, in the healthy placentas of preeclamptic and control group patients.

Material and Methods: The placental tissue samples have been obtained from the patients diagnosed with PE andfrom the postnatal placentas of the healthy pregnant women; and been analyzed through immunohistochemical methods for the expression levels of the Adhesion molecule, PECAM-1.

Results: In the placentas of the control group, a weak involvement of PECAM-1 has been observed in the endothelial cells covering the vein walls of the placental villus; yet in the placentas of the PE group, the involvement level has been observed to be high.

Conclusion: Due to the increase in the expression levels of PECAM-1 in preeclamptic placenta, the functional roles of these adhesion molecules are thought to be present in the pathophysiology of PE. And with this fact being known, decent treatment approaches will emerge in the future in order to avoid PE symptoms.

Keywords: Preeclampsia, pregnancy, platelet endothelial cell adhesion molecule-1

[OP-118]

Pregnancy results in uterine septum cases that continued pregnancy after the 1st trimester

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Objective: Uterine Septum comprises 55% of total Müllerian Truct Anomalies. Septum anomalies are related with negatve obstetric results such as preterm delivery and malpresentation as well as reduced fertility and abortion. In our study, we focused on the results in partial and complete septum cases that pregnancy continued in the 2nd trimester.

Material and Methods: Twenty patients who are over 20 weeks pregnant and diagnosed with uterine septum. Two groups were formed as complete (8) (40%) and partial (12) (60%) septum. Cases were evaluated in terms of delivery week, birth weight, delivery method, Neonatal Intensive Care Unit need and perinatal obstetric complications.

Results: Six (75%) cases in complete septum group and 6 (50%) cases in partial septum group were nulliparous. Average age in complete septum group was 25.5, and in partial septum group 23.5. While the avarage delivery week was 36w2d in complete septum group, it was 35w5d in partial septum group. During the delivery, there was oligohydramnios in 75% (6) of complete uterin septum cases, intrauterine growth restriction in 50% (4) and breech prezentation in all cases (100%). In partial uterine septum cases, these figures were oligohydramnios 50% (6), intrauterine growth restriction 33% (4) and breech prezentation 66% (8). Cesarean section rate in complete septum group was 100% while it was 66% in partial septum group and all cesarean section were because of obstetric complications present during delivery. Average birth weight in complete septum group was 2000 grams while it was 2320 grams in partial septum group. In both groups Neonatal Intensive Care Unit need was 50% (4/6) and all newborns were suffering from prematurity and low birth weight secondary problems.

Conclusion: Uterine septum is known to be related with negative

obstetric results such as abortion, preterm birth, low birth weight and malpresentation. Results in complete and partial septum cases show similarity. Therefore, when diagnosed before pregnancy, treatment should be advised regardless of the dimension. As a treatment hysteroscopic total septum resection should be provided in optimal conditions.

Keywords: Uterine septum, total, partial, pregnancy, hysteroscopy, resection

[OP-119]

Evaluation of lamina cribrosa in pregnant women measured by enhanced depth imaging optical coherence tomography

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Objective: Primary open-angle glaucoma (POAG) is a chronic progressive optic neuropathy. The resultant loss of retinal ganglion cells (RGCs) and their axons leads to a characteristic acquired optic atropy. The lamina cribrosa is a mesh-like structure that surrounds and protects the RGC axons at the optic nerve head. Deformation and displacement of the lamina cribrosa can block the axoplasmic flow within RGC axons. Thus, the lamina cribrosa is a key site for axonal injury in glaucomatous optic neuropathy. Recent advances in optical coherence tomography (OCT) have enabled visualization of the lamina cribrosa in clinical settings. OCT images of eyes with POAG have shown lamina cribrosa deformations such as increased anterior lamina cribrosa depth and decreased lamina cribrosa thickness. Glaucoma management during pregnancy generates numerous therapeutic challenges and potential risks for both the patient and the fetus. Data are limited on this topic given the lack of large, prospective, and randomized clinical trials because of ethical and legal constraints in this patient population. This study aimed to measure lamina cribrosa thickness and depth in healthy pregnant women using enhanced depth imaging-OCT (EDI-OCT) and compare the measurements with those of healthy non-pregnant women.

Material and Methods: In this prospective and cross-sectional study, 70 pregnant and 80 age-matched nonpregnant women were enrolled. Lamina cribrosa thickness and depth was measured using EDI-OCT. The refractive error, intraocular pressure (IOP), axial length (AL), central corneal thickness (CCT), retinal nerve fiber layer (RNFL) thickness were also measured. Pregnancy-related factors including gestational age, maternal weight gain, and estimated fetal weight were noted.

Results: The mean lamina cribrosa thickness in pregnant women was 260.06±12.27 μm. In comparison, the mean lamina cribrosa thickness in non-pregnant women was 247.89±5.79 μm ($p<0.001$). No significant correlation was found between lamina cribrosa thickness and spherical refraction, IOP, AL, CCT, RNFL thickness, gestational age, maternal weight gain, or estimated fetal weight. No significant statistical differences were found for lamina cribrosa depth between the pregnant and non-pregnant women. (364.88±68.64 μm, 404.33±90.37 μm, respectively, $p=0.15$).

Conclusion: The results of this study demonstrate that lamina cribrosa thickness increases in pregnant women compared with age-matched nonpregnant women. Physiologic changes occurring in lamina cribrosa thickness should be considered in the management of glaucoma during pregnancy.

Keywords: Lamina cribrosa, pregnancy, optical coherence tomography

Table 1. Demographic and clinical characteristics for the study (pregnant) and control (non-pregnant) groups

Parameters	Study group (n=70)	Control group (n=80)	p value
Age (year)	26.4±5.3 (18-35)	26.6±5.3 (19-35)	0.81
Gestational age (week)	25.5±3.6 (20-35)	26.4±4.3 (21-35)	0.21
Maternal weight (kg)	78.1±12.3 (52-98)	78.7±10.4 (52-99)	0.72
Maternal weight gain (kg)	11.8±3.8 (4-20)	12.7±4.46 (5-19)	0.19
Fetal weight (g)	729±372 (310-2130)	840±4.39 (320-2150)	0.89

Data are expressed as the mean ± SD, SD: Standard deviation

Table 2. Lamina cribrosa thickness and other ocular measurements in the study (pregnant) and control (non-pregnant) groups

	Study group (n=70)			Control group (n=80)			
Parameters	**Mean ± SD**	**Median**	**Range**	**Mean ± SD**	**Median**	**Range**	**p value**
Spherical equivalent (D)	-0.40±2.12	0.37	-5.50 to 2.75	-0.78±0.63	-0.56	-1.87 to 0.00	0.48
Axial length (mm)	23.25±0.85	23.01	22.05 to 25.0	23.54±0.46	23.72	22.70 to 24.1	0.23
Central corneal thickness (mm)	544.72±31.45	544.50	465 to 624	538.59±36.65	534	464 to 607	0.37
Intraocular pressure (mmHg)	13.58±1.58	14	10 to 20	15.27±3.15	15	10 to 20	0.06
cpRNFL thickness (μm)	103.53±10.42	104	85 to 120	105.72±5.21	106	98 to 114	0.44
LCT (μm)	260.06±12.27	260	236 to 281	247.89±5.79	247.5	235 to 258	<0.001
LCD (μm)	364.88±68.64	358	263 to 479	404.33±90.37	390.5	241 to 554	0.15

cpRNFL: Circumpapillary retinal nerve fiber layer, LCT: Lamina cribrosa thickness, LCD: Lamina cribrosa depth, SD: Standard deviation

[OP-120]

The effects of the pregnant body mass index on cerebral oxygenization and cord blood pH in elective cesarean operations with spinal anesthesia

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Objective: In the case of acute hypotension following spinal anesthesia performed in caesarean operations, fetal acidosis may be seen with uteroplesental perfusion disorder as maternal cerebral perfusion decreases. Near-infrared spectroscopy (NIRS) is a non-invasive technique that can measure changes in cerebral oxygenation. In acute hypotension, cerebral oxygenation is also reduced. In this study we aimed to evaluate the effects of body mass index (BMI) on cerebral oxygenation and cord blood pH.

Material and Methods: Twenty-five pregnant women who were scheduled for elective cesarean section between the ages of 18 and 50 were included in the study and they were in the American Society of Anesthesiologists (ASA-1) risk group. Patients were divided into two groups according to BMI: Group 1 (BMI <30, n=11) and Group 2 (BMI > =30, n=14). Cerebral oxygenation monitoring was provided by NIRS with probes placed in the frontal region of the left (LSO2) and right (RSO2) and hemodynamic monitoring of all patients routinely. Haemodynamic measurements and NIRS results were recorded at 5 min intervals during the operation. Patients were divided into two group: Group A (<2 min, n=7) and Group B (>=2 min, n=17). The umbilical cord bood sampling procedure was performed on all neonates. Statistical analysis was performed with the SPSS 21.0 program. P<0.05 was considered significant.

Results: Brain right lobe oxygenation was greater than 60 of the RSO2 values at all time intervals in Group 2. RSO2 in Group 1 was 5, 15, 20, 25, 30, 35, 40 minutes and the average of all time intervals was below 60 in. RSO2 values were significantly lower in Group 1 ($p<0.05$) compared to the 20th, 30th, and 35th minutes and between all time intervals. In the left ventricular oxygenation of the brain, Group 2 was above 60 of LSO2 values at all time intervals. Left lobe oxygenation (LSO2) was below 60 in the 5th, 10th, 15th, 25th, 30th, 35th and 40th minutes in Group 1 and averaged over all time intervals. Correlation analysis between weight and BMI and RSO2 and LSO2 measurements showed positive correlations between the RSO2 measurements at 15th, 20th, 25th, 30th, 35th and 40th minutes and the mean RSO2 values of all time intervals ($p<0.05$). There was a positive correlation between the 35-min LSO2 measurements with pounds and the mean LSO2 measurements of all time intervals ($p<0.05$). There was also a positive correlation between BMI and 35th, 40th min LSO2 measurements and mean LSO2 measurements of all time intervals ($p<0.05$).

Conclusion: In pregnant women, <30 BMI values reduce cerebral oxygenation in both lobes, especially in the right lobe of the brain, more prominently. However, this does not affect the baby cord blood, and there is no difference in the oxygenation of the baby. Low levels of BMI in pregnancy has an effect on reducing cerebral oxygenation.

Keywords: Cerebral oxygenization, pregnancy, ulmbilical cord pH, spinal anesthesia

[OP-121]

The evaluation of heavy metal levels in maternal blood and breast milk of women who have given birth at 37-40 gestational weeks

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Objective: To measure the levels of in the breast milk and the blood of postpartum women and to analyse and the correlation with sociodemographic, obstetric and neonatal outcomes.

Material and Methods: This prospective study was carried out in Ankara Zekai Tahir Burak Women's Health Training and Research Center and included 95 patients who gave birth between may and august. The blood samples were taken from antecubital vein. Breast milk samples 5 to 10 mL were taken from both breast after breast-feeding. Sociodemographic information regarding age, height, weight, area of residency, heating system in recidency, water consumption were asked. Obstetric anamnesis was taken and newborn results were recorded. Examples were studied by atomic absorption spectrometry. In statistical analysis, Pearson correlation analysis was used for sociodemographic characteristics and Mann-Whitney U test was used for comparison between groups.

Results: We found that the heavy metal levels on the maternal blood were similar to the literature and the heavy metal levels on the breast milk were higher than the literature. We only worked heavy metal from the colostrum, so we again emphasized that metal measurement should be done in matur milk. We found that the blood nickel level was significantly higher ($p=0.035$) in those who had domestic warming stoves, and the cadmium level was significantly higher in the patients who used tap water as water consumption ($p=0.025$). Furthermore, we found that the amount of iron in the blood of the residents of the metropolitan area was significantly lower than those living in the towns and villages ($p=0.023$). We found a negative correlation between lead, nickel, cobalt and manganese level of blood the and iron level of the breast milk ($p=0.015$; $p=0.001$).

Conclusion: Potential damages of heavy metals have been better understood in recent years in terms of human and environmental health. It should be kept in mind that domestic warming, consumed water, even drugs used can affect the levels of heavy metals in the

blood and human's milk. Care should be taken that the anemia of iron deficiency in pregnancy may also increase the risk of heavy metal toxicity.

Keywords: Breast milk, heavy metal, maternal blood

Table 1. Correlation between the amount of iron in the blood and milk of the mothers participating in the research and the other heavy metals in the blood and milk

		Level of blood iron	Level of breast milk iron
Level of blood iron	r p n	1.000 - 95	-0.106 0.347 81
Level of breast milk iron	r p n	-0.106 0.347 81	1.00 - 81
Level of blood manganese	r p n	0.405 0.02 57	-0.349 0.013 50
Level of breast milk manganese	r p n	0.059 0.679 51	-0.115 0.467 42
Level of blood zinc	r p n	-0.102 0.378 77	0.031 0.804 67
Level of breast milk zinc	r p n	-0.007 0.952 68	0.009 0.947 59
Level of blood copper	r p n	-0.069 0.538 81	0.019 0.880 67
Level of breast milk copper	r p n	-0.035 0.738 95	0.313 0.004 81
Level of blood cadmium	r p n	-0.011 0.936 56	0.180 0.220 48
Level of breast milk cadmium	r p n	0.017 0.906 52	-0.016 0.917 44
Level of blood nickel	r p n	0.086 0.526 57	-0.350 0.015 48
Level of breast milk nickel	r p n	0.073 0.532 75	0.041 0.750 63
Level of blood cobalt	r p n	0.527 0.117 10	-0.817 0.007 9
Level of breast milk cobalt	r p n	0.049 0.813 26	-0.003 0.990 20
Level of blood lead	r p n	0.343 0.001 95	-0.446 0.001 81
Level of breast milk lead	r p n	-0.042 0.696 89	0.510 0.001 77
There is a negative correlation between lead, nickel, cobalt and manganese level of blood the and iron level of the breast milk			

Table 2. Evaluation of the heavy metals detected by in-house warming of the patients participating in the research

	Coal (domestic warming)				Natural gas and air conditioning				p
	$\bar{X}$	SS	Min	Max	$\bar{X}$	SS	Min	Max	
Iron	98.62	120.87	34.90	625.71	88.51	56.56	7.83	313.48	0.718
Manganese	573.60	1104.65	12.93	3775.06	441.81	1086.24	3.06	6635.19	0.541
Zinc	522.57	361.99	56.59	1586.63	736.12	1600.85	37.14	8258.47	0.117
Copper	1609.47	560.62	236.22	2480.80	1621.49	688.69	565.52	3114.65	0.685
Cadmium	72.02	84.22	10.40	360.65	79.18	79.40	1.25	425.56	0.691
Nickel	767.89	907.32	36.39	2615.34	406.64	936.85	2.36	5999.55	0.035
Cobalt	366.07	456.44	3.20	1028.99	118.11	110.16	16.34	262.46	0.394
Lead	243.22	200.33	60.16	924.90	187.41	122.99	40.05	820.25	0.255

The blood nickel level was significantly higher (p=0.035) in those who had domestic warming stoves

Table 3. Evaluation of the heavy metals measured by the water consumption of the patients participating in the research

	Plastic bottle				Top water				p
	$\bar{X}$	SS	Min	Max	$\bar{X}$	SS	Min	Max	
Iron	85.34	51.21	7.83	313.48	96.24	94.01	19.50	625.71	0.893
Manganese	271.59	513.39	12.93	2388.24	669.77	1417.10	3.06	6635.19	0.231
Zinc	973.95	2027.21	59.19	8258.47	443.95	420.95	37.14	1630.18	0.411
Copper	1662.31	671.84	565.52	2900.52	1568.96	643.01	236.22	3114.65	0.583
Cadmium	61.78	76.98	1.25	425.56	95.13	81.17	14.09	360.65	0.025
Nickel	374.25	589.32	3.22	2615.34	612.31	1176.54	2.36	5999.55	0.315
Cobalt	115.88	87.24	24.72	249.08	318.71	418.31	3.20	1028.99	0.602
Lead	202.97	127.22	57.50	820.25	197.75	162.38	40.05	924.90	0.341
The blood cadmium level was significantly higher in the patients who used tap water as water consumption (p=0.025)									

[OP-122]

Postoperative results of early versus on-demand maternal feeding after cesarean delivery: A prospective randomized trial

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Objective: To compare early versus on demand maternal feeding after cesarean delivery regarding gastrointestinal complaints and patient's satisfaction.

Material and Methods: Two hundred sixty two uncomplicated singleton term pregnancies who had caesarean section under regional anaesthesia was included in our trial (registration number: NCT03349151). Patients were randomized to a soft food diet (honey, skimmed cheese, soup, mashed potatoes, pudding, grissini) served on postoperative 2nd hour or whenever they wanted to eat on return to the ward. Thirty minutes after they ate their meal, nausea, vomiting, ileus and distention was questioned. Participants were provided with the visual analogue scale (VAS), which was presented with a statement explaining what was intended to measure. Patients recorded patient satisfaction before discharge from hospital by using a 100 mm VAS (0= minimum satisfaction, 100= maximum satisfaction). Time to first flatus passage and defecation was recorded after the caesarean section.

Results: Two hundred sixty two women were recruited, with 133 (50.8%) randomized to early feeding and 129 (49.2%) to on-demand feeding. The major characteristics and surgical procedures for women and the study groups are shown in Table 1. The mean age of participants ranged between 21 and 44 years with a mean of 33.00±4.10 years. The body mass index of participants ranged between 17.3 and 46.3 kg/m^2 with a mean of 28.21±4.07 kg/m^2. A hundred seventy four (66.4%) of participants had nulliparity. Gestational age at delivery of participants ranged between 37 and 41.2 weeks with a median of 39 weeks. Eighty one (30.9%) of participants had repeat cesarean indication. Combined spinal-epidural analgesia technique was used for 185 (70.6%) participants. Morphine was used for 112 (42.7%) participants in regional analgesia. And, surgery duration of total participants ranged between 30 and 120 minutes with a median 60 minutes. The above interpretations are for the total column of Table 1. Interpretations are similar for the study groups. No significant differences in characteristics and surgical procedures variables of the women were recorded in either group (p>0.05). Trial results in the early and on-demand feeding groups are shown in Table 2. The mean time of the first feeding was 120.00±00.00 minutes for the early feeding group versus 236.59±107.74 minutes for the on-demand feeding group and the difference was statistically significant (p=0.001, p<0.05). The mean time of the second meal was 409.64±154.96 minutes for the early feeding group versus 553.6±194.94 minutes for the on-demand feeding group and the difference was statistically significant (p=0.001, p<0.05). Satisfaction levels did not differ significantly between two groups (p>0.05). Duration to first breastfeeding, analgesia on the ward, passage of flatus, defecation, mobilization and urination after catheter removal did not differ significantly between the study groups (p>0.05).

Conclusion: Despite the traditional approach, our trial shows that in low risk women early initiation of solid food after cesarean delivery under regional anesthesia, has high satisfaction levels, is safe, and does not increase gastrointestinal complaints. Flexibility can be demonstrated for postoperative feeding in uncomplicated patients after cesarean delivery. This may also shorten the hospitalization time and decrease the operational costs.

Keywords: Cesarean delivery, gastrointestinal complaints, patient satisfaction, postoperative feeding, prospective randomized trial

Table 1. Demographic criteria, surgical procedures of two groups under study

		Early feeding (n=133)	On-demand feeding (n=129)	*Total (n=262)*	p-value
Age (yrs)					
	Min-Max	22-43	21-44	*21-44*	[1]0.408
	Mean±SD	33.20±3.91	32.78±4.28	*33.00±4.10*	
	Median (Q1-Q3)	33 (31-36)	33 (30-36)	*33 (30-36)*	
BMI (kg/m^2)					
	Min-Max	17.3-40.9	18.1-46.3	*17.3-46.3*	
	Mean±SD	27.95±3.80	28.48±4.33	*28.21±4.07*	[1]0.296
	Median (Q1-Q3)	27.5 (25.3-30.5)	27.9 (25.5-31.2)	*27.6 (25.4-30.8)*	
Nulliparity (%)		92 (69.2)	82 (63.6)	*174 (66.4)*	[2]0.337
Gestational age at delivery (weeks)					
	Min-Max	37-41.2	37-40.4	*37-41.2*	
	Mean±SD	38.91±0.90	38.76±0.80	*38.83±0.84*	[1]0.273
	Median (Q1-Q3)	39 (28.2-39.4)	39 (38.4-39.2)	*39 (38.8-39.8)*	
Indication for cesarean section (%)					
	Repeat cesarean section	37 (27.8)	44 (34.1)	*81 (30.9)*	
	Malpresentation	11 (8.3)	8 (6.2)	*19 (7.3)*	
	Macrosomia	5 (3.8)	5 (3.8)	*10 (3.8)*	
	Failure to progress	20 (15)	8 (6.2)	*28 (10.7)*	[2]0.333
	Presumed fetal compromise	4 (3)	3 (2.3)	*7 (2.7)*	
	Performed on request	5 (3.8)	9 (7)	*14 (5.3)*	
	CPD	33 (24.8)	30 (23.3)	*63 (24)*	
	Others	18 (13.5)	22 (17.1)	*40 (15.3)*	
Regional analgesia technique (%)					
	Combined spinal-epidural	99 (74.4)	86 (66.7)	*185 (70.6)*	[2]0.168
	Spinal	34 (35.6)	43 (33.3)	*77 (29.4)*	
Morphine usage in regional analgesia (%)		53 (39.8)	59 (45.7)	*112 (42.7)*	[2]0.336
Surgery duration (min)					
	Min-Max	35-120	30-120	*30-120*	
	Mean±SD	62.30±14.23	65.81±17.52	*64.03±16.00*	[3]0.063
	Median (Q1-Q3)	60 (55-70)	60 (57.5-75)	*60 (55-70)*	

Min-Max: Minimum-Maximum, SD: Standard Deviation, Q1: 25th Percentile, Q3: 75th Percentile
[1]Student-t Test [2]Chi-Square Test [3]Mann Whitney U Test

Table 2. Trial results in the early and on-demand feeding groups

	Early feeding (n=133) Mean±SD (Median)	On-demand feeding (n=129) Mean±SD (Median)	p-value
Satisfaction level (mm)	92.3±10.66 (97)	89.65±15.79 (96)	[1]0.366
Time to start first feed (min)	120.00±0.00 (120)	236.59±107.74 (210)	[1]**0.001***
Food amount consumed at first feed (%)			
Small amount	10 (7.5)	4 (3.1)	
Moderate	28 (21.1)	34 (26.4)	[2]**0.204**
All or almost all	95 (71.4)	91 (70.5)	
Time to second meal (min)	409.64±154.96 (383.5)	553.6±194.94 (530)	[1]**0.001***
Outcomes 30 min after first feed (%)			
Nausea	7 (5.3)	11 (8.5)	[2]0.424
Vomiting	6 (4.5)	5 (3.9)	[2]1.000
Need of opiate analgesics (%)	15 (11.3)	18 (14)	[2]0.641
First breastfeeding (min)	65.69±44.15 (60)	67.87±33.73 (60)	[1]0.378
Need of analgesia (%)	53 (39.8)	59 (45.7)	[2]0.336
First analgesia on the ward (min)	173.86±143.8 (135)	180.23±141.5 (150)	[1]0.581
Time to first passage of flatus (hr)	17.32±8.19 (16.92)	18.73±9.51 (17.5)	[1]0.288
Time to first defecation (hr)	32.26±9.55 (31.5)	33.57±11.73 (33.96)	[1]0.436
Time to first mobilization (hr)	5.69±1.20 (5.83)	5.95±1.45 (6)	[1]0.200
First urination after catheter removal (hr)	3.14±1.61 (3)	3.44±2.25 (3)	[1]0.561

SD: Standard Deviation [1]Mann Whitney U Test [2]Chi-Square Test and Continuity Correction
**p<0.05*

[OP-123]

Sonographic evaluation of uterocervical angle/cervical length ratio to predict successful indution of labor

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Objective: Induction of labor represents one of the most common interventions in clinical obstetrics. There are numerous techniques for assessment of cervix before induction to predict the successful vaginal delivery. Of these, the most common used method is Bishop Score. The aim of the current study is to evaluate the effectiveness of transvaginal cervical length and uterocervical angle to predict vaginal delivery before induction of labor.

Material and Methods: The study is conducted at the Eskişehir Osmangazi University Obstetrics and Gynecology Department between November 2016 and May 2017 with an approval form the institutional ethical board. Term (37-42 gestational weeks) pregnancies with an indication of labor induction were included to the study. Before induction, all patients undergone transvaginal ultrasound screening to evaluate the cervical length and uterocervical angle (Figure 1). The cervical length/uterocervical angle ratio was also calculated. Vaginal examination was performed to record modified Bishop Scores of the patients. Exclusion criteria were cephalopelvic disproportion, estimated foetal weight >4000 g, multiple pregnancies and patients with a cervical dilatation of ≥2 cm. Labor induction was performed with dinoprostone vaginal ovula. Unsuccesfull induction is defined as latent phase of the first stage of delivery longer than 48 hours, and labor arrest was defined as failure of progress in cervical dilatation ≥2 h during the active phase of the labor. The primary outcome of the study was vaginal delivery. The secondary outcome was vaginal delivery in 12 h of labor induction.

Results: During the study period, labor induction was performed to 82 patients. Of these 14 were excluded for not meeting the inclusion criteria. Sixty-four patients were analysed. Demographic characteristics are presented in Table 1. Forty-one patients were delivered vaginally with an induction success of 64%. Total of 23 patients (35.9%) were delivered by caesarean section. Fourteen of the 23 patients delivered with caesarean section had an indication unsuccessful induction or labor arrest. The remaining nine patients were undergone caesarean section for acute foetal distress during labor. The outcomes of the study were presented in Table 2. The cervical length/uterocervical angle ratio was significantly lower in patients who had successful vaginal delivery than patients undergone caesarean for unsuccessful induction of labor (p=0.03). Nineteen patients (46.3%) were delivered in 12 h of induction and 22 (53.6%) were delivered after 12 h. The cervical length/uterocervical angle was significantly lower in patients who delivered in the first 12 h of induction (p=0.04).

Conclusion: The current study demonstrates that cervical length/uterocervical angle can successfully predict vaginal delivery and delivery in 12 h in patients who undergone labor induction. Larger studies are needed to confirm this finding.

Keywords: Induction of labor, uterocervical angle, transvaginal ultrasound

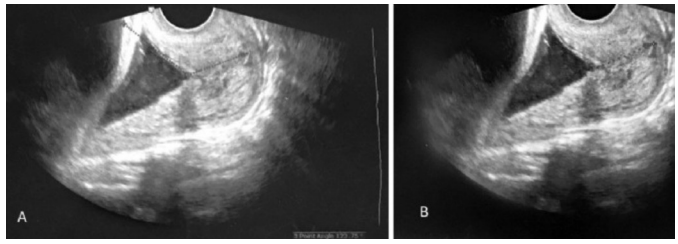


Figure 1. Measurement of uterocervical angle (A) and cervical length (B)

Table 1. Demographic characteristics of the patients

Variable	Vaginal delivery (n=41)	CS for unsuccessful induction (n=14)	Total (including CS for AFD) (n=64)	p
Age (years), mean (±SD)	29.49 (±5.72)	27.79 (±4.62)	29.27 (±5.5)	0.32
Nulliparous, n (%)	21 (51.2%)	11 (78.6%)	38 (59.4%)	0.11
Gestational age (weeks), mean (±SD)	38.49 (±1.71)	37.79 (±1.80)	38.16 (±1.68)	0.19
Indication, n (%)				0.70
FGR	14 (34.1%)	6 (42.9%)	23 (35.9%)	
Postterm pregnancy	11 (26.9%)	3 (21.4%)	14 (21.9%)	
Diabetes	7 (17.1%)	2 (14.3%)	13 (20.3%)	
Oligohydramniosis	4 (9.8%)	1 (7.1%)	6 (9.4%)	
Hypertension	4 (9.8%)	1 (7.1%)	6 (9.4%)	
Rh alloimmunization	1 (2.4%)	0 (0%)	1 (1.6%)	
Cholestasis	0 (0%)	1 (7.1%)	1 (1.6%)	
Bishop Score, median (IQR)	4 (3-5)	3.5 (2.75-5)	4 (3-5)	0.57

CS: Caesarean section, AFD: Acute foetal distress, SD: Standard deviation, IQR: Interquartile range, FGR: Fetal growth restriction

Table 2. Study outcomes

	Uterocervical angle/ cervical length ratio ± SD	p
Vaginal delivery, (n=41)	0.225 (±0.70)	0.03
CS for unsuccessful induction, (n=14)	0.287 (±0.14)	
Vaginal delivery in 12 h, (n=19)	0.201 (±0.05)	0.04
Vaginal delivery >12 h, (n=22)	0.245 (±0.74)	
SD: Standard deviation, CS: Caesarean section		

[OP-124]

Analysis of sexual abuse cases admitted for pregnancy termination in a tertiary care unit

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Objective: Sexual abuse crime is usually undesired sexual behavior by trick, threatening or force against. Child who doesn't complated 15 age or 15-18 ages. Sexual intercourse with 15-18 age with volition is sexual intercourse with underage crime and prosecution is depend on the complaint of the child. Aur aim is to discriminate the factors which give way to sexual abuse stuations in adolescent women under 18 years.

Material and Methods: Records of adolescents who are victims brought by court to University of Health Sciences, Zekai Tahir Burak Women's Health Practice and Research Hospital in 2017 has been viewed retrospectively. Annual birth number and birth in 15-19 and 15-18 ages are taken from hospital statistical records. Data about ages, occupation, nationality, marital status, educational status, school success, parental status, familiarity with hostile, taking cover of adolescent after event, drug addiction and tobacco usage, gravidas, parity, contraseption during event, DNA material delivery to forensic medicine instution, who accompanied to victim, drug abuse during event, social activities of adolescent, domestic datas, body mass index (BMI), chronic diseases and hepatitis serology are taken from registrations in judicial case unit. SSPS 17 are used for statistical analysis.

Results: Annual birth rate in our hospital were 16.000 and the ratio of annual birth number in women aged 15-19 years and 15-18 years to whole births in ZTB were 4.04% (n=645) and 2.2% (n=360) respectively in 2017. 10/17 (58.8%) of cases were fragmented family children and only 6/17 (35.2%) of victims came with their parents. Characteristics of victims are given in Table 1.

Conclusion: Although, parents, educators, policy makers and health workers are all responsible for healthy physical and psychological development of adolescent sexual status, family integrity is the most important factor.

Keywords: Adolescent, sexual abuse, pregnancy termination

Table 1. Characteristics of sexual abuse victims admitted for pregnancy termination

Characteristics	Values
Age groups	Mean age=15.5 (SD ±1.4) 13 age n=1 14 age n=4 15 age n=2 16 age n=4 17 age n=6
Nationality	Turkish women n=16 Syrian adolescent n=1
Marital status	Unmarried n=17
Who accompanied to victim	Mother n=10 Parents n=6 (1 adoptive parents) Father n=1
Educational status	Primary school student n=1 Secondary school student n=7 High school student n=8 Unknown n=1
Occupation	Unemployed n=13 Hair dresser n=1 Waiter n=3
Parental status	Divorced n=6 Parents together n=9 Adoptive parents n=1 No parent n=1
Hausing with	Mother n=1 Father n=2 Parents n=7 In kindergarden n=5 Other people n=2
School success	Not known n=10 Not good n=7
Familiarity with hostile	No familarity n=3 Friend (1 police) n=4 Darling n=7 Sexual partner n=1 Information not given by victim n=2
Social activity	Not present n=15 Football n=1
Gravida	1 gestation n=16 2 gestation n=1
Parity	None n=16 1 parturition n=1
Contraceptive use during event	Yes n=1 No n=16

[OP-125]

Normal variants of ductus venosus spectral Doppler flow patterns in normal pregnancies

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Objective: Ductus venosus (DV) Doppler examinations in pregnancy have a widespread use for several important reasons and play a crucial

role in order to determine the fetal wellbeing. DV is usually visualized by the colour Doppler mapping. We observed the instantaneous spectral flow type changes in pulsed Doppler examinations in spite of performing with the correct technique published by several authors. The variability of the pattern makes the sonographer/physician to be unsure for the correct placements of the sample gate despite fulfilling the all criteria required for the vessel sampling. It is aimed in the study to define variations of the normal DV spectral flow types in the duration of the pulsed Doppler examinations instead of in a single cardiac cycle in normal pregnancies.

Material and Methods: This prospective study was conducted between January 2016 and February 2017. A total of 1028 singleton pregnant women between 11-40 weeks were included to the study. Patients were excluded in these maternal and fetal conditions; 1) diabetes mellitus, 2) twin pregnancy, 3) hypertension or preeclampsia, 4) cardiac rhythm disturbances, 5) smoking, 6) polyhydroamnios, 7) fetal congenital abnormality, 8) fetal growth restriction, estimated fetal weight $<10^{th}$ percentile, 9) macrosomia, estimated fetal weight $>90^{th}$ percentile, 10) fetal stillbirth. All Doppler examinations are performed by a single experienced specialist (C.G.), who had been certificated for DV flow and Doppler examinations by Fetal Medicine Foundation.

Results: A total of 7 types of flow patterns were recorded during the study period (Figure 1). DV flow patterns were divided in to two categories as classic flow pattern and the other patterns (Figure 1). The classical pattern was observed in 160 (99.4%) cases in the first trimester, 495 (94.1%) cases in the second trimester and 206 (60.8%) cases the third trimester (Figure 2). All DV flow patterns and incidences according to the trimesters were seen in Figure 3.

Conclusion: We think that the fetal circulation is complicated more than estimated. It can be speculated that "Is DV has a regulating role towards to the right atrial (or cardiac) flow directly or is DV flow only reflecting the cardiac compensation system through the retrograde blood flow?" The fetal cardiovascular system adopts strategies to decrease oxygen consumption and redistribute the cardiac output away from peripheral vascular beds and towards essential circulations. There might be some endocrine agents released in the instantaneous physiologic reactions and changing the venous return abruptly or due to decreasing of the cardiac output directed to the placenta after 34 weeks influence the volume of the circulating blood in the fetus and so thereby the flow velocities instantaneously. In conclusion, the spectral waveform recognition approach is not reliable to identify the DV depending on the trimester of the pregnancy and the DV should be visualized by wide-band color Doppler techniques, such as Advanced Dynamic Flow-Toshiba, High Definition Doppler-GE, Hitachi-eFlow. Studies are needed to evaluate the normal variant flows correlated with the physiological compensatory mechanisms.

Keywords: Ductus venosus, flow pattern, spectral Doppler flow patterns

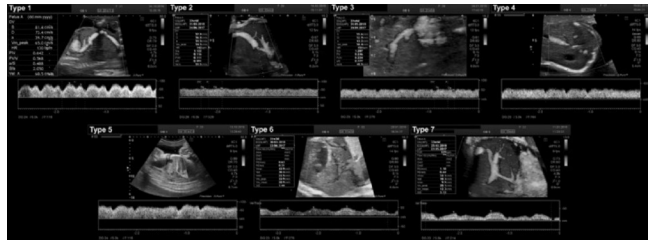


Figure 1. (1) Normal waveform pattern: This is the most common and well-known type and there is 2 peaks and 2 nadirs reflecting the atrial pressures in a cardiac cycle, (2) Monophasic umbilical venous (MUV) pattern: In this type, the S/a ratio of the DV is less than the maximum / minimum blood flow velocities ratio of the umbilical vein (UV Vmax/Vmin) (3) Almost monophasic: the S/a ratio of the DV is more than the Vmax/Vmin ratio of the umbilical vein 4) MUV pattern with intermittan normal waveform component, (5) Normal waveform pattern with intermittan MUV component, (6) Undulant waveform pattern, (7) Mixed or unclassified flow pattern

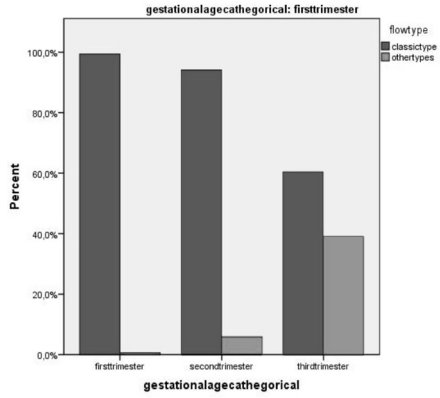


Figure 2. The distribution of classical and the other type of ductus venosus flow patterns according to the trimesters

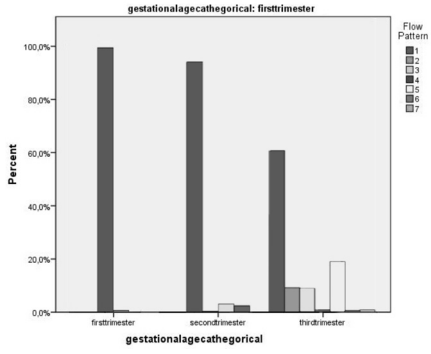


Figure 3. The distribution of all ductus venosus flow patterns according to the trimesters

[OP-127]

The expression level of placental KISS-1 in first trimester pregnancy losses

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Objective: The aim of our study was to investigate whether first trimester pregnancy losses are associated with the expression level of placental KISS-1.

Material and Methods: The study group included 30 patients who were referred to Başkent University Konya Practice and Research Center between 2014 and 2017 and who underwent dilatation and curettage due to first trimester pregnancy loss. The control group included 30 patients who underwent dilatation and curettage for legal termination of pregnancy (below 10 weeks). Patients who had retroplasental hematoma, vaginal bleeding, trauma history, fetal anomaly, alcohol or cigarette use, maternal and fetal infection, systemic lupus erythematosus, hypertension, diabetes, chronic renal insufficiency, hematologic disease, uterine anomaly, cervical polyp, gynecological malignancy, and previous ectopic pregnancy according to detailed anamnesis and physical examination were excluded from the study. The genetic examination performed in the pathology materials of all the control and study groups was normal. Results are expressed as "positivity" that takes into account the intensity of staining. KISS expression was evaluated semi-quantitatively using the following scale; -: negative, +: weak (Figure 1), ++: moderate (Figure 2) and +++: strong (Figure 3).

Results: In our study, the mean age was 31.54±4.95 years in the control group and 31.89±7.37 years in the study group. There was no significant difference between the two groups in terms of age, gravida status, parity number, and previous abortion. This confirmed that the demographic characteristics of both groups were homogeneously distributed. There was a significant difference in median value of KISS-1 expression level between the two groups. The median value for the control and study groups was respectively 3 (severe) and 2 (moderate) (p=0.004) (Table 1). In the control group in which KISS-1 expression level was higher, KISS-1 expression level was found to be significantly lower in patients with previous abortion (p=0.002) (Table 2). After the ROC curve analysis for kisspeptin was performed, the cut-off value was determined as 2. The sensitivity and specificity were found to be 59.3% and 83.3%, respectively (Table 3, Graphic 1). In the control group, while KISS-1 levels were not related to age, there was a statistically significant negative correlation between KISS-1 levels and gravida, parity, previous abortion. In the study group, there was no positive or negative correlation between KISS-1 levels and other variables (Table 4).

Conclusion: KISS-1 protein expression level, which was determined in the decidua, syncytiotrophoblasts and cytotrophoblasts, was found to be significantly lower in patients with pregnancy loss. Previous studies have shown that kisspeptin and its receptor had an effect on trophoblast invasion. In our study, the KISS-1, which encodes neuropeptides known as kisspeptins, was found to be lower in patients with pregnancy loss.

Keywords: KISS-1, kisspeptin, abortus, legal termination

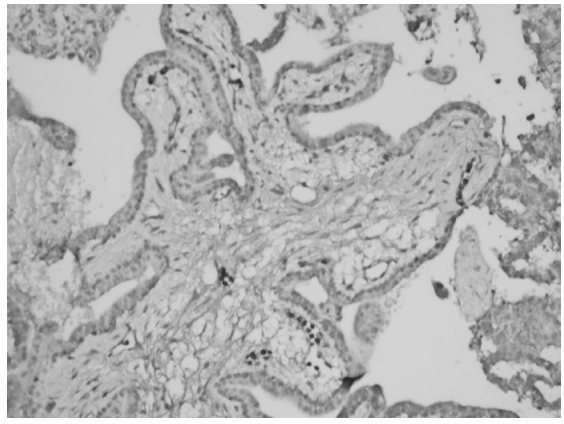


Figure 1. Weak (+) intensity of staining

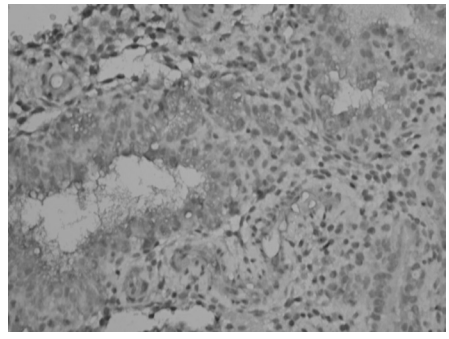


Figure 2. Moderate (++) intensity of staining

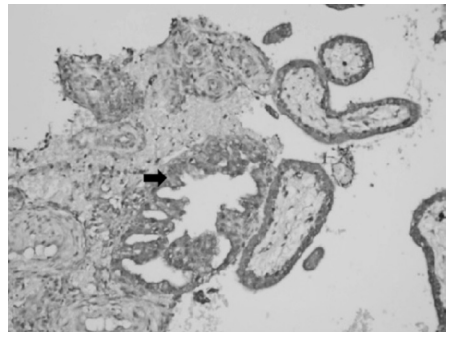
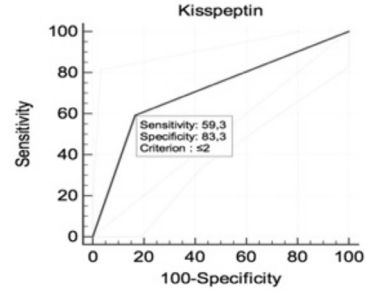


Figure 3. Strong (+++) intensity of stainingv



Graphic 1. Sensitivity and specificity for KISS-1

Table 1. Comparasion of demographic data and KISS-1 levels between the two groups

	Optional abortion	Abortus	Total	p value
	(n=24)	(n=27)	(n=51)	
	Mean ± SD/ max-min	Mean ± SD/ max-min	Mean ± SD/ max-min	
Age	31.54±4.95 / 41-24	31.89±7.37 / 43-19	31.73±6.29 / 43-19	0.839
	Median (max-min)	Median (max-min)	Median (max-min)	
Parity	2 (8-1)	2 (7-1)	2 (8-1)	0.893
KISS-1	3 (3-2)	2 (3-2)	3 (3-2)	0.004
	n (%)	n (%)	n (%)	
Gravida				
Primigravid	8 (33.3)	8 (29.6)	16 (31.4)	1
Multigravid	16 (66.7)	19 (70.4)	35 (68.6)	
Previous abortion				
None	21 (87.5)	19 (70.4)	40 (78.4)	0.182
1	3 (12.5)	8 (29.6)	11 (21.6)	

SD: Standard deviation, Max: Maximum, Min: Minimum, Independent t-test (Bootstrap), Mann-Whitney U test (Monte Carlo), Pearson chi-square test (Exact)

Table 2. Investigation of the relationship between 1 levels and previous abortion in both groups

	Previous abortion	n	KISS-1 Median (max-min)	p value
Optional abortion				
	No	21	3 (3-2)	0.002
	Yes	3	2 (2-2)	
Abortus				
	No	19	2 (3-2)	1
	Yes	8	2 (3-2)	

Max: Maximum, Min: Minimum, Mann-Whitney U test (Monte Carlo)

Table 3. Determination of cut-off, sensitivity and specificity values for KISS-1

		Optional abortion	Abortus	AUC ± SE	p value
Cut-off		(n=24)	(n=27)		
		n (%)	n (%)		
KISS-1					
	>2	20 (83.3)*	11 (40.7)	0.713±0.073	0.004
	<2	4 (16.7)	16 (59.3)**		

AUC: Area under the receiver operating curve, SE: Standard error, *Sensitivity, **Specificity, Receiver Operating Curve Analysis (Honley and McNell-Youden Index J)

Table 4. Correlation analysis for KISS-1

KISS-1	Optional abortion	Optional abortion	Abortus	Abortus	Total	Total
	r	p	r	p	r	p
Age	-0.243	0.252	0.17	0.397	0.005	0.97
Gravida	-0.465	0.022	0.147	0.465	-0.099	0.49
Parity	-0.425	0.038	0.279	0.158	0.006	0.968
Previous abortion	-0.845	<0.001	-0.043	0.832	-0.544	<0.001

r: Correlation coefficient, Spearman's rho test

[OP-128]

Effect of low molecular weight heparin treatment on oxidative stress, apoptosis and pregnancy outcomes in blood of patients with recurrent pregnancy loss due to thrombophilia

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Objective: Recurrent pregnancy loss (RPL) is a loss of three or more consecutive pregnancies with fetal weight less than 500 grams or before the 20th week of pregnancy (1). In recent years, it has been thought that the oxidative stress-induced apoptosis may lead to abortions (2) and various investigations have been made for this, although low molecular weight heparin (LMWH) induced modulator role on oxidative stress and apoptosis in different diseases except RPL. Aim of this study was to evaluate the role of LMWH treatment before pregnancy on the oxidative stress-induced apoptosis and pregnancy outcomes in patients with RPL due to thrombophilia.

Material and Methods: Healthy age-matched subject and patients with clinically and laboratory-proven thrombophilia and at least had 2 abortions were included and they were divided into four groups. Group 1 (control group): Ten people without any disease. Group 2 (patient group): Ten patients with thrombophilia who had RPL and did not use LMWH before pregnancy. Group 3 (treatment Group 1): Ten patients with thrombophilia who had RPL and used LMWH before pregnancy. Group 4 (treatment Group 2): Sixteen patients with RPL who were thrombophilia and had used LMWH after pregnancy. In Group 1, 2 and 3 venous blood was plated with anticoagulants, plasma and platelets were isolated and oxidative stress and apoptosis parameters were compared between groups. In Group 3, LMWH was continued during pregnancy and the maternal and neonatal outcomes of Group 3 and 4 pregnancies were examined.

Results: The LMWH treatment reduced the RPL-induced increase in apoptosis, reactive oxygen species, mitochondrial membrane depolarization, caspase 3 and 9 values in the thrombocytes of patients. However, LMWH treatment attenuated the RPL-induced increase

values in the thrombocytes of patients. Group 3 and 4 had a 2.5-fold decrease in pregnancy loss (odds ratio: 2.560) with pre-pregnancy LMW initiation compared to miscarriage results, there was a statistically significant difference between the groups in terms of miscarriages (p=0.016). There was no statistically significant difference between the groups regarding the course and outcome of the gestation according to maternal and neonatal outcomes according to the time of onset of LMWH in Groups 3 and 4 (p>0.05).

Conclusion: It has been observed for the first time in literature that patients with RPL due to thrombophilia prevent oxidative stress by promoting GSH-Px enzyme activity before pregnancy. When the effect on pregnancy outcome was examined, the miscariage rates decreased significantly by using LMWH before pregnancy. In conclusion, LMWH treatment decreased the oxidative stress-induced apoptosis, in the RPL due to thrombophilia. Our findings may be relvant to the elucidation and treatment of RPL.

Keywords: Recurrent pregnancy loss, thrombophilia, oxidative stress-induced apoptosis, before pregnancy, low molecular weight heparin

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[OP-129]

A single-center retrospective analysis of pregnancy outcomes after emergency cerclage with visible membranes

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Objective: To evalute the maternal and perinatal outcomes after emergency cerclage.

Material and Methods: A total of 22 women who underwent emergency cerclage with visible membranes at Düzce University School of Medicine, Deparment of Obstetrics and Gynecology between June 2015 and June 2017 were enrolled in this study. All patients were treated with modified Shirodkar cerclage procedure with 5 mm Mersilene tape.

Results: The median gestational age at day of cerclage placement was 20.18 weeks (17-24). The cerclage-to-delivery interval was 83.81 days (3-140). 9.1% (n=2) patients had rupture of membranes during cerclage procedure. The mean cervical after cerclage was 22.45 mm (10-32). The median gestational age at delivery was 32.31 weeks (25-39). Overall neonatal survival rate was 90.9%.

Conclusion: Emergency cervical cerclage might be effective inprolonging pregnancy and improving neonatal outcome in women with cervical incompetence.

Keywords: Cervical insufficiency, cerclage-to-delivery interval, emergency cerclage

Table 1. Demographic characteristics and pregnancy outcome of emergency cerclage cases

Maternal age (years)	26 (18-41)
Gravity	2 (1-6)
Parity	0 (0-2)
Length of pregnancy at cerclage (week)	20.18 (17-24)
Length of pregnancy at delivery (week)	32.31 (25-39)
Cerclage-to-delivery interval (day)	83.81 (3-140)
ART pregnancies	6 (27.3%)
Multiple pregnancies	4 (18.9%)
Pupture of membranes during cerclage procedure	2 (9.1%)
Neonatal death	2 (9.1)

[OP-130]

Abortion and pregnancy outcome in endometriosis

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Objective: To determine the live birth rates, spontaneous abortion and threatened abortion rates in patients with endometrioma.

Material and Methods: A retrospective cross-sectional study between 2008-2018 in Gazi University Department of Obstetrics and Gynecology was designed with singleton pregnancies with known endometrioma. These patients had either surgery from endometrioma or not. *In vitro* fertilization (IVF), threatened abortion, spontaneous abortion, live birth rates and mean gestational week at birth were determined for all patients. SPSS 21.0 was used for statistical analysis.

Results: In total 62 pregnant women who had endometrioma were included in the study, and followed whole pregnancy in our clinic. Between these patients 38.7% had threatened abortion. In addition to that, 32.3% (20/62) had spontaneous abortion. Among these patients IVF and spontaneous conceived pregnancy rates were similar. However, spontaneous abortion rates in IVF group and spontaneous conceived group were 52.4% and 10%, respectively (p=0.004). The mean gestational age at birth was 37+4 week. The preterm delivery (birth <37 week gestation) rate was 16% (7/44).

Conclusion: The eutopic endometrium in patients with endometrioma has different cellular and molecular structure. In the current study, spontaneous abortion rate was higher than normal population. This rate was especially high in IVF group. In addition to that, preterm delivery rate was high according to World Health Organization data. Further studies with larger patient group should be planned in order to reach to more informative conclusions for pregnancy outcome.

Keywords: Endometriosis, abortion, pregnancy outcome

[OP-131]

Prediction of gestational diabetes mellitus in the first trimester, comparison of maternal serum fetuin-A, N-terminal peptie of proatrial natriuretic peptide, high sensitive C-reactive protein and fasting plasma glucose

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Objective: The aim of this study was to investigate maternal serum fetuin-A, N-terminal peptide of proatrial natriuretic peptide (pro-ANP), high sensitive C-reactive protein (hs-CRP), and fasting plasma glucose (FPG) levels at 11 to 14 weeks of gestation in predicting pregnancies complicated by gestational diabetes mellitus (GDM).

Material and Methods: The prospective case-control study included of 327 women completed antenatal follow-up at a tertiary research hospital between January and April 2014. Blood samples were collected between 11-14 gestational weeks in the first trimester of pregnancy from these low risk pregnant women and then stored at -80 °C until assay time. During the follow-up 29 (8.8%) women who developed GDM. The study population was compared with healthy controls (n=59) matched for age and body mass index in a 1:2 Fetuin-A, pro-ANP, hs-CRP, and FPG levels were measured using automatic immunoassay systems.

Results: The mean maternal plasma fetuin-A concentration was significantly lower and hs-CRP levels were significantly higher for patients who subsequently developed GDM than for those with uncomplicated pregnancies in the first trimester. There was a significant negative correlation of serum fetuin-A and hs-CRP (CC=-0.21, p=0.047) and a positive correlation of FPG and hs-CRP (CC= 0.251, p=0.018). Area under ROC curve (AUC) analysis of fetuin-A, hs-CRP and FPG for diagnosing GDM was 0.337 (p=0.013), 0.702 (p=0.002) and 0.738 (p<0.001), respectively. Maternal hs-CRP levels above 4.65 ng/mL had the highest sensitivity (86.21%), negative predictive value (NPV) (88.24%) with a diagnostic accuracy of 88.64%. Maternal plasma fetuin-A levels below 166 ng/mL had the highest specificity (76.27%) and positive predictive value (54.84%) with a diagnostic accuracy of 70.45%. Maternal FPG levels above 88.5 mg/dL had the highest sensitivity of 79.31% (95% CI: 59.74-91.29), and NPV 85.37% with a diagnostic accuracy of 85.23%.

Conclusion: First-trimester maternal serum low fetuin-A and high hs-CRP can be used for the early detection of GDM beyond FPG. Further research is needed before accepting these as screening tests for gestational diabetes mellitus.

Keywords: Fasting plasma glucose, fetuin-A, first trimester screening, gestational diabetes, high sensitive C-reactive protein, N-terminal peptide of proatrial natriuretic peptide

[OP-132]

Two cases of pregnancy after modified laparoscopic pectopexy

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Objective: The aim of this cases are to present the first pregnancy outcome in the literature after succesful modified laparoscopic pectopexy for pelvic organ prolapse.

Material and Methods: We present two cases of pregnancy after modified laparoscopic pectopexy; one was delivered and the other one has an ongoing pregnancy. A 34 years-old woman gravida 2 para 2 diagnosed with Stage 3 uterine descensus according to pelvic organ prolapse quantification (POP-Q) system. After counseling, a novel technique named modified laparoscopic pectopexy was performed, because the patient opted for fertility sparing surgery. Six months after the operation pregnancy was detected. After an uneventful pregnancy follow up, cesarean section was performed at 38 weeks and baby was delivered weighing 2500 gr. Six months post-delivery, the patient was asymptomatic. Cesarean section is planned for the second case according to pregnancy process.

Results: Pelvic examination and pelvic magnetic resonance imaging of the patients shows us there is no recurrent prolapse.

Conclusion: Several laparoscopic surgical procedures have been described for the treatment of uterovaginal prolapse with conservation of the uterus. Pregnancies subsequent to these procedures are scarce. Short term results of the patients indicate that pregnancy does not alter surgical outcome of laparoscopic pectopexy or vice versa. More studies are needed to shed light on the effect of pregnancy on pectopexy procedure for POP.

Keywords: Pectopexy, pelvic organs prolapsus, pregnancy outcome



Figure 1. Caesarean section shows two stitches between cervics uteri and mesh

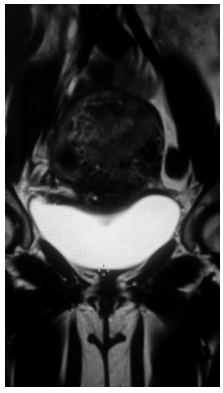


Figure 2. Pelvik MRI arrows show mesh headed to the pectineal ligaments

[OP-134]

The importance of time between antenatal steroid administration and delivery in preterm infants

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Objective: Prematurity is one of the major causes of perinatal mortality and morbidity. Respiratory distress syndrome (RDS) is one of the most important complications of preterm delivery and is the primary cause of early neonatal morbidity and mortality. It is clear that antenatal corticosteroid (ACS) administration to pregnant mother accelerates lung maturation and reduces the incidence of RDS. However, it is still unclear, how long is the effectiveness of the completed dose of ACS administration. The present study aimed to clarify the time-dependent effect of completed dose of ACS administration in preterm neonates and its association with adverse neonatal outcomes.

Material and Methods: This cross-sectional study was conducted at Kayseri Training and Research Hospital, Clinic of Obstetrics and Gynecology between January 2017 and January 2018. Patients who were diagnosed with preterm delivery between the gestational age of 30+0 and 33+6 weeks and who had completed ACS administration for fetal lung maturation were included in the study. All patients underwent the same treatment protocol and two doses of 6 mg betamethasone (Celestone Chronodose Ampul) were administered at 24 hour intervals. Patients were divided into 3 groups according to ACS administration timing of exposure; 1) less than 48 h, 2) 48 h to 7 days, 3) beyond 7 days. Maternal characteristics and adverse neonatal outcomes compared among groups.

Results: In total, 104 pregnant women were enrolled in this study: 40 were delivered less than 48 h, 31 were delivered 48 h-7 days and 33 were delivered beyond 7 days. Maternal and obstetrics characteristics were similar among groups. The mean maternal age, body mass index, gravidity, gestational age at steroid administration time, vaginal delivery rates, birth weight and 5 minute APGAR <7 were similar among groups (p=0.290, p=0.504, p=0.852, p=0.858, p=0.883, p=0.748, p=0.892, respectively). RDS and transient tachypnea of the newborn (TTN) were significantly decreased in 48 h-7 days group compared to the other groups (p<0.001, p<0.001, respectively). Fourty eight h-7 days group had a lower stay at neonatal intensive care unit compared to other groups (p<0.001).

Conclusion: Our results indicate that ACS administration in preterm neonates significantly reduce the incidence of RDS and TTN in 48 h-7 days group compared to less than 48 h group and beyond 7 days group. The optimal treatment-delivery interval for administration of ACS proposed by the Royal College of Obstetrics and Gynecology is more than 24 hours and before 7 days after the completion of a course of ACS. Some authors showed that infants delivered beyond 7 days of ACS have a higher RDS incidence than within 7 days of ACS. In another study, time interval of more than 14 days of ACS administration is associated with increased risk of ventilator support and surfactant use. These question the need for a repeated dose of ACS if delivery did not occur within 7 days of first ACS exposure. However, there are concerns regarding the safety of repeated doses of ACS. In conclusion, the data from the present study indicate that we believe that it will be useful administration of repeated dose of ACS after 7 days interval from previous administration for reducing neonatal complications such as RDS.

Keywords: Prematurity, antenatal corticosteroid, respiratory distress syndrome, transient tachypnea of the newborn

Table 1. Comparison of maternal characteristics and adverse neonatal outcomes among groups

	Less than 48 h n=40	48 h 7 days n=31	Beyond 7 days n=33	p value
Maternal age (years)	28.27±2.39[a]	28.96±2.16[a]	29.09±2.57[a]	0.290
BMI (kg/m^2)	28.21±1.59[a]	27.98±1.47[a]	27.82±1.10a	0.504
Gravidity	3.35±0.73[a]	3.45±0.67[a]	3.39±0.82a	0.852
Gestational age at steroid administration	32.07±1.24[a]	32.22±0.99[a]	32.12±1.16[a]	0.858
Vaginal delivery (n%)	31 (77.4%)[a]	24 (77.5%)[a]	26 (79.7%)[a]	0.883
Birth weight (g)	2837.5±288.6[a]	2856.6±114.6[a]	2782.2±137.6[a]	0.748
APGAR 5 min <7 (n%)	2 (5%)[a]	1 (3.2%)[a]	1 (3.03%)[a]	0.892
RDS	16 (40%)[a]	6 (19.3%)[b]	12 (36.3%)[a]	<0.001
TTN	18 (45%)[a]	6 (19.3%)[b]	13 (39.3%)[a]	<0.001
Stay at NICU (day)	31.82±6.08[a]	15.77±2.75[b]	18.81±2.76[c]	<0.001
NEC	1 (2.5%)	0 (0%)	0 (0%)	NA
IVH	2 (5%)	0 (0%)	1 (3%)	NA
Sepsis	2 (5%)	0 (0%)	0 (0%)	NA

BMI: Body mass index, TTN: Transient tachypnea of the newborn, RDS: Respiratory distress syndrome, NICU: Neonatal intensive care unit, IVH: Intra-ventricular hemorrhage, NEC: Necrotisan enterocolitis, NA: Not available, Different superscript numbers indicate statistically significant differences. The Minitab®16 statistical program (Minitab Inc., State College, PA, USA) was used to carry out the statistical analysis. For the normality assumption of the data tested with Shapiro Wilk test, and Levene test was used for the variance homogeneity assumption. Values are expressed as mean ± standard deviation. Parametric comparisons were made via a t-test or z-test, and non-parametric comparisons were made via a Mann-Whitney U test. P<0.05 was considered statistically significant

[OP-135]

Analysis of drug use during pregnancy in a tertiary women health hospital

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Objective: Drug use during pregnancy closely affects the health of both the mother and the baby. For the prevention of therapeutic abortion because of teratogenic drug use, generalization of planned pregnancies with family planning services, detection of gestation and prescribing effective drugs at minimal effective doses according to gestational weeks, prevention of drug use without physician's prescription, pre-pregnancy counseling is important to ensure safe medication use for both mother and fetus. Our aim is to analyze the drug use during pregnancy in women giving birth in our hospital.

Material and Methods: The study is conducted at University of Health Sciences, Zekai Tahir Burak Women's Health Practice and Research Center, Postpartum Clinics in which postpartum patients are hospitalized after delivery. In February 2017, 109 postpartum patients were questioned prospectively about the drugs they have used and who have prescribed the drugs during pregnancy after given informed consent. Their obstetric histories, educational status were also assessed.

Results: Of the 109 postpartum patients, 51 (46.8%) were primiparous and 58 (53.2%) were multiparous. Their educational status were associate degree and above 21.3%, high school 31.2%, secondary school 21%, primary school 24.7% and not able to read and write 1.8%. The classification of the drugs were as follows: multivitamins 54.1%, antianemics 43.1%, folic acid 18.3%, vitamin D 11.9% and antibiotics 9.2%. The rate of drugs used apart from these was 48.6%. The percentage of patients who did not use any drug was 15.6%. The prescribed drugs were given by a specialist doctor 82.6% and by family physician 11.9%. The percentage of the over-the-counter drug usage was 5.4%.

Conclusion: In a study, up to 80% of women are estimated to use at least one medication during pregnancy. Among the 12 most comparable studies using administrative prescription databases, estimated rates of prescription drug use in pregnancy excluding vitamins and minerals ranged from 44.2% to 93% across countries. The use of antibiotics during pregnancy varies between 19.7-40.8% in Europe and USA. Our study shows that drug use in pregnancy excluding vitamins and minerals is also high, whereas antibiotic use is relatively low (9.2%). In Turkey, primary goal of rational drug use is to decrease unnecessary antibiotic usage. With this national action plan, the ratio of prescriptions, which includes an antibiotic, decreased from 34.9% to 29.5%. Although antibiotics are widely used in general population, according to our results during pregnancy it is relatively low compared to other countries. Given that the medicines used in pregnancy affect the long-term health of both the baby and the mother, it is of utmost important that the drug use recording system during pregnancy and breastfeeding period in our country is needed. So, as a starting point for a registration system during pregnancy and lactation period for our country, we set up an e-mail address where our patients can give feed-backs about the prescribed medicine in our hospital, and we started to get feedback.

Keywords: Drug registry, safe drug use, pregnancy

[OP-136]

Disseminated metastatic vulvar cancer presented with breast mass and cutaneous lesion

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Vulvar cancer is a rare cancer accounting for 5% of all gynecological cancers. Squamous cell carcinoma (SCC) is the most common (nearly 90%) histologic type. Vulvar cancer mainly spreads to inguinal lymph nodes by lymphatic pathway in early course of the disease. Distant metastasis, by the way of hematogenous spread, usually occurs late and is rare in the absence of lymphatic metastasis. Exceptionally, cutaneous and breast metastasis of vulvar cancer were identified just in 9 and 2 patients, respectively up to now. We report a disseminated metastatic vulvar cancer presented with breast mass and cutaneous lesion. A 43 years old woman presented with vulvar pruritus at January 2017. Her medical history was normal with a normal mammography done 2 years ago. A 4 cm vulvar mass localized at left labium minus was detected at gynecological examination. Punch biopsy of the lesion showed SCC of the vulva. Pre-operative chest X-ray and Pap-smear was normal. Partial radical vulvectomy with bilateral inguinal lymph node dissection was performed. Final pathology was well-differentiated SCC of the vulva. Totally 9 lymph nodes were negative for metastasis. Lympho-vascular invasion was also negative. But the surgical margin was positive. The final stage was FIGO IB (T1b, NO, M0). Adjuvant vulvar radiotherapy was planned but the patient refused the treatment. Nine months after surgery, patient presented with unilateral breast mass and isolated nodular skin lesion on her scalp that started to appear in 2 months (Figure 1, 2). Genital examination was normal. PET/CT evaluation revealed isolated scalp skin lesion, multiple parancyhmal (breast, lung, adrenal gland, pancreas, kidney) and musculo-skeletal lesions. Vulvar lesion was re-evaluated with the metastatic lesions in comparable analysis; in situ carcinoma, together with invasive component, was detected in vulvar specimen. The absence of neoplastic changes in scalp skin also supported metastasis. A biopsy was also taken from lung to exclude a primary lung cancer that was in accord with the other lesions. Immunohistochemistry showed focal positivity for p16, diffuse positivity for p63, and negative staining for c-erbB2, AR, TTF-1, GATA-3, ER, GCDFP-15, PR, keratin 7 in both lesions (vulvar and metastatic ones). Although HPV DNA was negative in all specimens, tumors of the vulva, breast, scalp skin and lung were all morphologically and immunohistochemically similar. First cure of taxol and carboplatine chemotherapy was started immediately. It is important to distinguish primary tumor from metastasis in the cutaneous and breast malignancies. Because, 1 year survival is less than 20% for breast and skin metastasis of vulvar cancer which had a worse prognosis than primary cancer of these sides. The sample taken from the breast should be evaluated together with the first specimen of vulva. HPV DNA analysis is valuable in differential diagnosis. Although HPV DNA was negative in our case, morphology and immunohistochemistry supported our possible diagnosis of

vulvar metastatic disease. Treatment of metastatic breast cancer is palliative. Unfortunately, it would be a preterminal event when breast/skin metastases of vulva were detected.

Keywords: Vulva cancer, breast, skin, metastasis



Figure 1. Breast metastasis of vulvar cancer

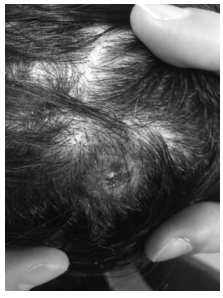


Figure 2. Scalp skin metastasis of vulvar cancer

[OP-137]

Low-grade endometrial stromal sarcoma combined with leiomyoma (stromomyoma): A bizarre tumor of the uterus in a premenopausal oman

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Uterine sarcomas are very rare malignancies, and when a hysterectomy is performed for benign causes, a risk of aout 1/500 is mentioned for possible uterine sarcomas. Endometrial stromal neoplasms are a rare subgroup of uterine sarcomas that account for less than 10% of all uterine sarcomas. Mixed endometrial stromal and smooth muscle tumors, also known as stromomyomas, are defined as having at least 30% each of endometrial stromal and smooth muscle components. As a result, stromomyoma is an extremely rare malignant mixed mesenchymal tumor of the uterus. Both clinically and histologically, the differential diagnosis is challenging. A 45 year-old woman (gravida 2, para 2) was admitted to the Clinic Obstetrics and Gynecology of the Zekai Tahir Burak Women's Health Practice and Research Center with complaints of pelvic pressure, pelvic pain, and chronic constipation. In her anamnesis, there were two vaginal birth history, one of which was five years ago. A myoma of about 4-5 cm was detected at her last pregnancy and managed expectantly after delivery. Her pelvic examination showed that the uterus was greater than 16 weeks' gestational size, and it was mobile without tenderness. Both adnexae were also free and unremarkable. An intramural myoma of 95*62 mm in size that subserous extending was observed on transvaginal ultrasound examination. The patient requested fertility sparing surgery for the treatment of the current mass that was presumed myoma. After the approval of surgical council, she underwent myomectomy. Macroscopic appearance of the mass was shown in Figure 1. The histopathology was suggestive for low-grade endometrial stromal sarcoma combined with leiomyoma (Figure 2, 3), and surgical margins were also reported as positive. The patient underwent second surgery for staging on postoperative day 22 due to the residual disease. The second surgery was also uneventful, and she was discharged on postoperative 4th day. There is no problem in the patient who has been in follow-up for 2 years. Stromomyoma should be kept in mind in the differential diagnosis of large uterine masses, even if these masses are seen in an asymptomatic woman of reproductive age. In this study, we aimed to present this bizarre tumor of the uterus detected in a premenopausal woman.

Keywords: Uterine sarcoma, endometrial stromal tumor, neoplasm, uterine leiomyoma



Figure 1. Macroscopic appearance of the mass. White colored smooth muscle fibers around yellow colored areas of endometrial stromal cells

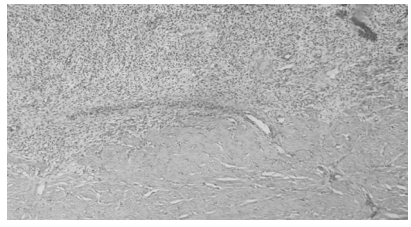


Figure 2. Microscopic image showing smooth muscle fibers surrounding the endometrial stromal cells. The smooth muscle fibers surrounding the endometrial stromal cells (20x. H and E)

[OP-138]

Primary vulvar myoepithelioma with malignant behavior

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Primary vulvar myoepithelioma is extremely rare tumor with only eleven cases in the literature. In the present study, we describe a 31 years old patient who referred to our hospital with a history of vulvar excisional biopsy and diagnosed mixed malignant vulvar tumor. She underwent radical vulvectomy and bilateral inguinofemoral

lymphadenectomy. Pathological evaluation revealed a primary vulvar myoepithelioma with negative margins and bilateral metastatic inguinal lymph nodes. No evidence for distant metastasis was found in positron emission tomography. Since the rarity of disease, adjuvant treatment and prognosis of primary vulvar myoepithelioma is unclear. Therefore, case series could be helpful for management of patients with primary myoepithelioma of vulva.

Keywords: Myoepithelioma, vulvar, radical vulvectomy

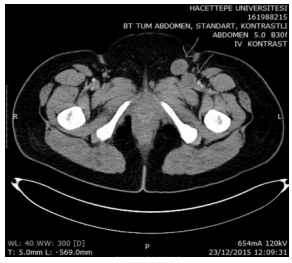


Figure 1.

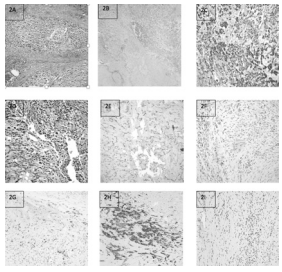


Figure 2.

[OP-139]

Comparison of colposcopic biopsy results with high risk HPV positive cytologic results

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Objective: The aim of the present study was to evaluate the pathologic results of colposcopic examination of patients with high risk (Hr) HPV who have normal or abnormal cytologic findings and to identify the distribution of HPV types with biopsy results.

Material and Methods: The present study was performed between January 2017 and September 2017 in patients who attented to Harran University Clinic of Obstetrics and Gynecology for routine gynecological control or any gynecological complaints. Demographic data of patients were obtained from patient files. Patients were divided into 3 groups of 20-30, 31-40 and over 40 years old. Pap-smear and swab samples were taken concurently from cervical transformation zone and external cervical ostium and presence of Hr HPV-DNA were searched. Eighty-four patients with Hr HPV who have normal or abnormal cytologic findings were included in the study.

Results: The smear results of 84 patients with Hr HPV positivity were reported as 61. 9% inflammation, 6% ASCUS, 17.9% LSIL, 17.9% HSIL, 1.2% ASC-H and 2.4% atrophy. The most common colposcopic biopsy was CIN1 (21.2%) in patients with inflammatory cytological result, CIN2 (40%) in patients with ASCUS and epithelial hyperplasia (33.3%) in patients with LSIL. Patients with HSIL cytological result had 44.4% both CIN2 and CIN3, 11.1% CIN1 pathologic diagnoses. HPV 16 was detected in two patients with squamous cancer and HPV 18 was detected in one patient with squamous cancer. HPV 16 and HPV 18 were detected in two patients who had a cervical adenocarcinoma diagnosis. HPV 16 was the most common and HPV 18 was the second most common HPV type. In parallel with the age interval, it was determined that dysplasia of cervix showed progression in patients with Hr HPV.

Conclusion: In Hr HPV positive patients, colposcopic biopsy independent of smear results is likely to detect the presence of dysplasic lesions. With more and larger studies in the future, we think Hr HPV screening alone may take place of the smear test.

Keywords: Colposcopy, HPV, smear

Table 1. Comparison of smear results with colposcopic biopsy results

Smear results	Inflamation n (%)	CIN 1 n (%)	CIN 2 n (%)	CIN 3 n (%)	Cronic cervisitis n (%)	Epitelial hyperplasia n (%)	Cervikal polip n (%)	Squamous cancer n (%)	Adeno carcinom n (%)	Total n (%)
Inflamation	10 (19.2)	11 (21.2)	5 (9.6)	2 (3.8)	12 (23.1)	7 (13.5)	5 (9.6)	-	-	52 (61.9)
ASCUS	1 (20.0)	1 (20.0)	2 (40.0)	-	-	1 (20.0)	-	-	-	5 (6)
LSIL	4 (26.7)	2 (13.3)	-	-	2 (13.3)	5 (33.3)	-	2 (13.3)	-	15 (17.9)
HSIL	-	1 (11.1)	2 (22.2)	2 (22.2)	-	1 (11.1)	-	1 (11.1)	2 (22.2)	9 (10.7)
ASC-H	1 (100)	-	-	-	-	-	-	-	-	1 (1.2)
Atrophy	-	-	-	-	2 (100)	-	-	-	-	2 (2.4)

The horizantal line indicates colposcopic biopsy results. The vertical line indicates smear results

Table 2. Distribution of high risk HPV types according to colposcopic biopsy results

Hr HPV types	Inflamation n (%)	CIN1 n (%)	CIN2 n (%)	CIN3 n (%)	Cronic cervicitis n (%)	Epitelial hyperplasia n (%)	Cervikal polip n (%)	Squamous cancer n (%)	Adenocarcinom n (%)	Total n (%)
HPV 16	2 (9.5)	1 (4.8)	5 (23.8)	3 (14.3)	3 (14.3)	3 (14.3)	1 (4.8)	2 (9.5)	1 (4.8)	21 (25)
HPV 18	2 (15.4)	3 (23.1)	3 (23.1)	1 (7.7)	-	1 (7.7)	1 (7.7)	1 (7.7)	1 (7.7)	13 (15.5)
HPV 30	5 (20.8)	7 (29.1)	1 (4.1)	-	-	6 (25)	2 (8.3)	-	-	24 (28.5)
HPV 45	-	1 (50)	-	-	1 (50)	-	-	-	-	2 (2.3)
HPV 50	7 (30.4)	2 (8.6)	-	-	9 (39.1)	4 (17.3)	1 (4.3)	-	-	23 (27.3)
HPV 66	-	1 (100)	-	-	-	-	-	-	-	1 (1.1)

[OP-140]

Prevalence and genotype distribution of HPV among women attending a cervical cancer screening to university hospital in Rize Turkey

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Objective: Cervical cancer is the third most common type of cancer followed by breast cancer and colorectal cancer in women. Several methods, such as visual inspection, the Pap-smear and human papilloma virus (HPV) DNA testing, had been performed for screening. In particular, early diagnosis of HPV infections and the detection of viral genotypes are important to reduce cervical cancer morbidity and mortality. The aim of this present study was to conducted to evaluate the presence of HPV DNA and distribution of HPV subtypes among females aged 30-65 years who attened for routine cervical cancer screening in Rize.

Material and Methods: From January 1 to December 30, 2017, consecutive samples of cervical swabs from women attending the gynecological clinic were retrospectively evaluated. Cervical samples were collected with a cytobrush during examinations and investigated for the presence of HPV-DNA by Hybrid Capture 2 (Qiagen, Germany) method. In HPV-positive cases, cervical samples were cytologically examined.

Results: During the study period, 2601 specimens were collected and tested for HPV genotyping. Average age of the subjects were 45 years (range 30-65 years). Overall, 152 of the women were found to be HPV positive (5.8%). There are 27 mucosal HPV types that have been recognized, and these are further divided into three groups based on their epidemiological association with cervical cancer: 14 high-risk HPV types (HPV 16, -18, -31, -33, -35, -39, -45, -51, -52, -56, -58, -59, -66, -68), 4 possibly high-risk HPV types (HPV 53, -70, -73, and -82), and 9 low-risk HPV types (HPV 6, -42, -54, -61, -69, -72, -74, -84, -85). The most common genotype was HPV 16 (13.3%), followed by HPV 51 (10.1%), HPV 31 (9.6%), HPV 52 (7.3%), HPV 68 (6.9%), and HPV 66 (6.4%). HPV 18 was found in only 5.9% of cases. The high-risk HPV subtype was found in the 84.7% of HPV positive samples. After cytological examinations were performed in HPV-positive samples, there were 47 normal smears (30.9%), 40 non-specific infections (26.3%), 14 ASC-US (9.2%), 7 LGSIL (4.6%), 1 HGSIL (0.6%), 2 glandular cell abnormalities (1.3%) and 41 cases were determined inconclusive (27.9%).

Conclusion: According to datas of Cancer Control Department of the Ministry of Health for the year 2010, the total number of women with cancer per year is about 62.000 in Turkey. These include the cervix cancer constitutes approximately 2.3% of the total number of cases and unfortunately half of the cases diagnosed in the advanced stage where chance of cure was lost. There is a causal relationship between HPV and cervical cancer and HPV immunity is genotype specific, therefore it is advisable to investigate the types of HPV that are common in different geographic areas and to accelerate research for vaccines targeting the most common high-risk HPV types in Turkey. In this study, the most frequently detected virus genotype after HPV 16 was HPV 51 and -31, which are classified as potential high-risk types. But it is necessary to expand this study to a larger number of patients in Turkey, in order to better evaluate genital HPV types distribution among women and men.

Keywords: Cervical cancer screening, human papilloma virus, genotyping

[OP-141]

Management of stoma complications with vacuum-assisted closure therapy after advanced ovarian cancer operations

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Objective: We aimed to present our experience with vacuum-assisted closure management of stoma complications in debulking surgery after ovarian cancer operations.

Material and Methods: Debulking surgery was performed to 64 patients who were admitted İstanbul Medeniyet University Göztepe Training and Research Hospital with the diagnosis of advanced ovarian cancer between January 2016 and January 2018. Patients'

surgical notes, epicrisis and pathologies were examined. The data of cases were analyzed and retrospectively compared. Four patients complained of stoma complications. Two of these patients underwent vacuum-assisted closure therapy due to stoma complications.

Results: Total abdominal hysterectomy, bilateral pelvic para-aortic lymphadenectomy and omentectomy were performed on all patients. During these debulking gyneco-oncologic surgeries with gastroenterological procedures; 6/64 ileostomy, 5/64 total colectomy, 5/64 low anterior resection, 5/64 colostomy, 4/64 segmental small bowel resection, 3/64 sigmoid resection, 3/64 liver metastasectomy, 1/64 right hemicolectomy, 1/64 distal pancreatectomy were performed, respectively. Stoma complications were developed in four of the patients. Stoma retraction in 2/64, parastomal necrosis in 1/64, dehiscence of stoma in 1/64 patient were developed, respectively.

Conclusion: Debulking surgery is widely used in advanced ovarian cancer. During this surgeries, resections of many parts of the gastrointestinal tract may be necessary. Moreover, stoma procedures are inevitable. Although stoma procedures are life saving in some cases, they can cause serious complications. Stoma complications after ovarian-cancer debulking surgery can be effectively treated with VAC therapy.

Keywords: Ovarian cancer, debulking surgery, stoma

[OP-142]

Early-stage endometrioid type endometrial cancer: Our laparoscopic experience of 2 years

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Objective: Endometrial cancer is the most commonly seen gynecologic cancer and it is mostly diagnosed at early stage. The surgical treatment has been changed traditionally from conventional open surgery to minimally invasive surgery today in early stage disease. Here, we aim to present the patients' characteristics, surgical outcomes, safety and efficacy of laparoscopic surgery done for early-stage endometrioid type endometrial cancer cases during the last two years.

Material and Methods: A retrospective review of endometrioid type endometrial cancer cases treated with laparoscopy were included between January 2016-December 2017. Twenty-two cases were retrieved from medical records during the study period. The demographic findings, type of surgery, intraoperatif findings, postoperative outcomes and any complications were retrospectively evaluated.

Results: Twenty-two cases of endometrioid type endometrial cancer were operated with laparoscopy. The mean age of all cases was 54.2±10.6. 53.8% of cases were post-menapousal and 40.9% (9/22) of cases had BMI above 30 kg/m^2. Amongst them, 11 cases underwent total laparoscopic hysterectomy (TLH) + bilateral salpingoophorectomy (BSO). Nine cases had TLH + BSO + bilateral pelvic node dissection (PLND). One case underwent only PLND + omentectomy due to the incomplete surgery performed in another hospital. One case underwent TLH + BSO + PLND + paraaortic lymph node dissection. The decision of PLND in early stage was done according to the Mayo Clinic criteria which are myometrial invasion, grade of the tumor and tumor size greater than 2 cm which was detected with intraoperative frozen section for all cases. In 11 cases, all the cancers had myometrial invasion less than half of the myometrium and Grade 1 or 2 with tumor size less than 2 cm. Amongst 11 cases, 2 ones had 60-75% myometrial invasion, 3 cases had Grade 2 or 3 tumor and 6 patients had just only tumor size of larger than 2 cm without myometrial invasion above half of myometrium and Grade 3 tumor. In two patients, lymph nodes were found to be positive. And interestingly, one of this patients had Stage 1 endometrial cancer and lymphoblastic lymphoma in lymph nodes. No conversion to the laparotomy was observed. Regarding intraoperative complications, one bladder perforation was occured which was diagnosed one week after the operation due to the urine leakage into the abdominal cavity and treated with open surgery by urology team. Deep vein thrombosis and pulmonary emboli was developed in one patient and treated for one week in intensive care unit. On follow-up, no reccurence was observed in any patient.

Conclusion: Minimal invasive surgery is a safe and effective method in early stage endometrial cancer. Our experience showed that it should be preferred and offered to the patients as a first line treatment.

Keywords: Laparoscopy, endometrial cancer, minimal invasive surgery

[OP-143]

A novel scoring system in predicting malignancy risk of adnexal masses

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Objective: To construct a model with high predictive value in identifying malignancy risk of adnexal mass by combining clinical features, imaging and laboratory parameters.

Material and Methods: Preoperative clinical and ultrasonographic findings, tumor markers (CA 125, CA 19-9, CEA, AFP), total blood parameters, neutrophil/lymphocyte ratio and platelet/lymphocyte ratio parameters of 636 patients with adnexal mass were randomized. The cases were divided into two groups as benign (n=509) and borderline/malign (n=127) ovarian tumor according to postoperative histopathological examination results. After the parameters examined were divided into categorized according logistic regression analysis was performed after separating categorical values according to the threshold values, which showed significant difference between the two groups. A risk likelihood score was given by scoring each parameter according to the coefficients of influence of these factors (Ataturk Scoring Model). According to this score, each of the events received at least 1, at least 7 points. Sensitivity, specificity, positive predictive value (PPD), negative predictive value (NPD), positive likelihood ratio (L+), and negative likelihood ratio (L-) were calculated for this model's predictive performance of preoperative malignancy. Statistical analyses were performed with SPSS 17.0 statistical program, and $p<0.05$ was considered statistically significant.

Results: The parameters that not differ statistically between two groups (benign and malign histopathology) were age, gravida, parity, duration of

menopause, tumor markers (CA 125, CA 15-3, CA 19-9, CEA), hemotocrit, neutrophil count and ratio, lymphocyte ratio, monocyte ratio, platelet count, neutrophil/lymphocyte ratio and platelet/lymphocyte ratio ($p>0.05$). Multivariate logistic regression analysis showed postmenopausal status, USG had pathological findings ≥2, CA 125 value was ≥45 U/mL, CA 15-3 value was ≥20 U/mL and platelet/lymphocyte ratio was ≥155 were found to be significant influential factors. When the total score according to the scoring system was ≥4, it was calculated that malignant masses could be detected preoperatively with 83.1% sensitivity, 78.5% specificity, 51.3% PPD, 94.4% NPD, L+= 3.86, L-= 0.22 and 79.5% accuracy.

Conclusion: Malignancy can be predicted with high sensivity with newly created Ataturk Scoring System in cases with adnexal mass. This system will allow patients with a high probability of malignancy to be referred to experienced gynecological centers and receive adequate surgical treatment.

Keywords: Adnexal mass, malignancy, pelvic mass, preoperative prediction

[OP-144]

Laparoscopic sentinel lymph node mapping in early stage endometrial carcinoma: Preliminary results

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Objective: Endometrial carcinoma can be diagnosed as Stage 1 75-80% because symptoms of disease can be seen early in this stage. Pelvic lymph node metastases are seen 10% in early stage of endometrial carcinoma. If metastases are seen in lymph nodes five year survival rates decreased from 80-90% to 54%. On the other hands systematic lmph node dissection increases morbidity and mortality. Sentinel lymph node sampling can decrease morbidity and mortality and also lymph node metastases can be captured and the treatment of this patients can be completed with adjuvant therapies. In this study we are trying to evaluate availability of sentinel lymph node sampling by using near infrared fluorescent imaging and indocyanine green (ICG) in early stage endometrioid type endometrial carcinoma. Here is our preliminary results of six patients with early stage endometrial carcinoma.

Material and Methods: Six patient with low grade endometrium carcinoma were prepared to laparoscopic hysterectomy. Before the operation started during setup of operation 5 mg ICG was prepared with 5 mL distelled water and injected 1.5 mL from each 3 and 9 o'clock locations to 1 cm depth of cervix. Pelvic lymph node screening was done after nearly 25 minutes of injection with infrared fluorescent imaging, sentinel lymph node dissection and frozen sections were done. Sentinel lymph nodes' frozen section results and definitive results were evaluated.

Results: Four of these 6 patients' sentinel lymph node screening could be done bilaterally. The mean values of sentinel lymph node number for these 4 patients was 4.5. All of these sentinel lymph nodes were reactive nodes, there was any metastases. The mean operation time was 127.5. In the definitive pathology results the mean of total bilateral lymph node numbers were 7.25, all of these nodes were also reactive. False negative results of frozen section were 0%. Only one patient's myometrial invasion was 60%, the other's myometrial invasions were lesser than 50%. There was no lymphovascular space invasion (LVSI). Two of these 6 patients sentinel lymph nodes could not be screened laparoscopically and accepted as negative. The myometrial invasion of these two patients were also 50% and lesser than 50%. In the definitive pathology results there was no LVSI. Any complication was seen in these 6 operations.

Conclusion: Sentinel lymph node screening can be done easily with laparoscopy. In early stage endometrial carcinoma lymph node metastases were seen very few; lymph node dissection doesn't change treatment and stage of disease mostly. The operation time of early stage endometrium carcinoma was increasing with sentinel lymph node mapping. Although 6 patients were few in number for exact results the preliminary results of our study shows that pelvic lymph node mapping and dissection is not necessary for early stage endometrium carcinoma. On the other hand laparoscopic sentinel lymph node sampling and frozen section can be done confidentially as the results are all same with definitive pathology results.

Keywords: Sentinel lymph node, early stage endometrium carcinoma, laparoscopy

[OP-145]

Comparison of stage 1A and stage 1B endometrial cancer patients who were unequivocally LVSI positive and grade 1-2: Analsis of high intermediate risk group which was currently defined by ESMO-ESGO-ESTRO consensus in 2016

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Objective: The patients with endometrial cancer have been devised based on clinicopathological prognostic factors to identify patients at the risk of recurrence and to guide adjuvant therapy use. According to contemporary guidelines, a new risk subgroup has been declared. Regardless of depth of invasion, all patients who were unequivocally LVSI positive and Grade 1-2 defined as high-intermediate risk group. The purpose of this retrospective study was to compare the prognoses of women with Stage 1A high-intermediate endometrial cancer to those women of Stage 1B high-intermediate endometrial cancer.

Material and Methods: A single center, retrospective department database review was performed to identify patients with endometrial cancer. A total of 46 women with Stage 1 endometrial cancer who were unequivocally LVSI positive and Grade 1-2 between 2008 and 2018 were included in this retrospective study. Seventeen (37%) were classified as

Stage 1A and 29 (63%) as Stage 1B. Kaplan-Meier method was used to generate survival data.

Results: The 5-year disease-free survival (DFS) rate was 94.1% vs 82.3% (p=0.95) and 5-year overall survival (OS) was 94.1% vs 89% (p=0.81) for Stage 1A and Stage 1B, respectively.

Conclusion: DFS and OS rates of patients with Stage 1A, Grade 1-2 and LVSI positive endometrial cancer and Stage 1B, Grade 1-2 and LVSI positive endometrial cancer seem to be similar.

Keywords: Endometrial neoplasms, high-intermediate, lymphovascular space invasion, depth of invasion

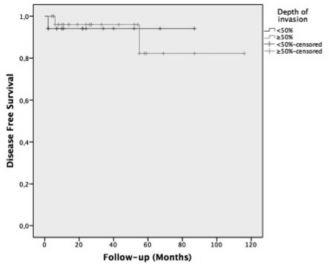


Figure 1. Disease-free survival curve of women with Stage IA, Grade 1-2 and LVSI positive compared to that of Stage IB, grade 1-2 and LVSI positive

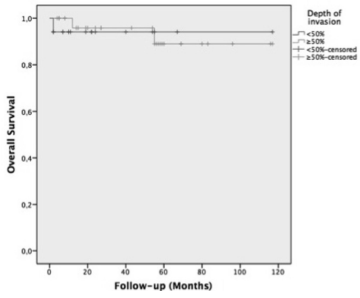


Figure 2. Overall survival curve of women with Stage IA, grade 1-2 and LVSI positive compared to that of Stage IB, Grade 1-2 and LVSI positive

[OP-146]

Depression and anxiety in patients with positive cervical HPV screening

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Objective: Today, cervical HPV screening is routinely performed in many clinics. Although Pap-smear examination doesn't indicate malignancy, positive HPV typing can lead to depression and anxiety. Our aim is to evaluate the association of dermographic features with depression and anxiety in HPV positive patients.

Material and Methods: Patients (n=171) followed up for positive cervical HPV scan between January 2017-December 2017 in the Clinic of Obstetrics and Gynecology of Kartal Training and Research Hospital were included in the study. Following datas as age, occupation (working/not working), education (university and upper/high school and below), income level (<1500 Tl, 1500-4500 Tl and >4500 Tl), marital status (married/single) and the number of children were recorded for each patient. The beck depression and hamilton anxiety scales were administered and the results were compared among the groups formed by the dermographic characteristics of the patients. Statistical analysis was performed via by SPSS 17 program, Student's t-test for continuous values and Mann-Whitney U test for categorical comparisons were used. P≤0.05 values were considered significant.

Results: The average age of 171 patients was 42.3. When the beck depression scale, hamilton anxiety scale and education level of the working and non-working patients were compared, the anxiety of the working patients was found to be significantly higher (p<0.05) (Table 1). In addition, there was a statistically significant higher level of education in the working group (p<0.05). There was no statistically significant difference when the income level, marital status and parity of the patients were compared with beck depression and hamilton anxiety scales (p>0.05). While there was no correlation between the number of births and depression and anxiety scores, there was a significant correlation between age and anxiety score only, as a result it was observed that anxiety reduces with increasing age [correlation coefficient (r): -0.1696, r squard: 0.0287714, p=0.027].

Conclusion: Patients with a positive HPV screening test can be found to be depressed and anxious, especially in the early stages. The cause of this anxiety and depression may be caused by feelings of sadness, shame, corrupted relational trust, accusations, stigmatization and regret in sexual activities other than the risk of being cancer. In our study, anxiety was found to be significantly higher in women with profession, and the level of education in this group is also high. The cause of increased anxiety of intellectual people who are working and who have higher educational level may be the potentials of them having more ideas about HPV, cancer screening, infectious diseases and transmission forms. Though not meaningful, the fact that depression is less in the working group suggests that intellectual activity has an effect on reducing depression. Causes such as decreased fertility with increased age, and being of the diseases more unacceptable at younger ages can cause a negative correlation between age and anxiety.

Keywords: Depression, anxiety, HPV, screening, positive

Table 1. Comparison of working/non-working patients in terms of depression, anxiety, education level

	Group 1 (n=78)	Group 2 (n=93)	p
Beck depression***	13.8±8.9	14.4±9.4	0.656*
Hamilton anxiety***	13.5±8.2	11.1±6.8	0.040*
Education level (university, n)	23 (29.5%)	11 (11.8%)	0.007**
Group 1: Working patients, Group 2: Non-working patients, *Student's t-test, **chi-squared test, ***Average, p≤0.05 was considered significant			

[OP-147]

Evaluation of clinical significance of serum obestatin levels in endometrial hyperplasia and endrometrioid type endometrim cancer patients

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Objective: Obestatin is a 23 aminoacid molecule that originated from ghrelin and characteristic with its proliferative feature. It was reported that obestatin is synthesized in intestines, hypothalamus and hypophysis. In human study, it was reported that obestatin causes proliferation by activating cell proliferating map kinase pathway in retinal epithelial cells. Etiology of endometrial cancer and atypical endometrial hyperplasia includes unopposed estrogen exposure. This study was planned considering estrogen induced proliferating cells. It was aimed to evaluate the effect of obestatin on early diagnosis, stage and degree of disease and pathology in patients those were proved to have endometrial cancer, atypical hyperplasia and proliferative endometrium after encometrial sampling and post surgical pathology result.

Material and Methods: In this prospective study, all data was collected from the patients those applied to Clinic of Oncology and Gynecology of Zekai Tahir Burak Women's Health Practice and Research Center between 2014 May and 2015 July. Study group consists of 60 patients, 33 with endometrium carcinoma, 27 with atypical hyperplasia approved by post surgical endometrial sampling and the control group consists of 30 patients whose endometrial sampling resulted as proliferative endometrium. We compared the preoperative obestatin value which was measured by ELISA technique, with pathological diagnosis, stage and prognostic factors.

Results: In this study with 90 patients, age, menopause age and time since onset of menopause, BMI, endometrial thickness, serum obestatin level, existence of other malignity, existence of PCOS, family history and existence of DM was studied. In cancer group, mean age was 55.2±8.6 and higher than other groups ($p<0.05$). As known, mean age for endometrial cancer is 61 and it is similar with this study. Time since onset of menopause was 0 year in control group, 6.6±6.4 years in cancer group and it was significantly longer than hyperplasia group ($p<0.05$). Patients with DM was more in cancer group and that was significantly more than other groups ($p<0.05$). Endometrial thickness was significantly thicker than other groups in cancer group ($p<0.05$). In all groups, there was no difference for obestatin ($p>0.05$).

Conclusion: There was no difference for serum obestatin levels in groups consisting of endometrial cancer, atypical hyperplasia and proliferative endometrium. Despite its therotical relevence in cell production process, it was thought that obestatin couldn't not be used as a tumour marker when considering the results but according to results, However serum obestatin levels decrease as the grade and stage increase. Obestatin can be defined as a pre-operative predictive marker to define poor prognosis in endometrioid type endometrium cancer patients.

Keywords: Endometrial cancer, atypical hyperplasia, obestatin, proliferation

[OP-148]

Surgical technique preference for cervical conization according to surgical margin positivity for high grade lesions; coldknife conization? Or triangle-probe LEEP conization?

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Objective: To compare the efficiency of two different surgical techniques for high grade lesions in uterine cervical conization.

Material and Methods: Medical records of 112 patients who underwent cold-knife conization and triangle-probe LEEP conization for high grade lesions (45 cold-knife conization, 67 triangle-prob LEEP conization) were analysed retrospectively between 2010-2017 years in our tertiary clinic. Before conization, all of the patients were evaluated by smear and have been directed to conization by performing colposcopy and cervical biopsies in our own colposcopy unit. Cold-knife conization was done by suturing two hemostasis sutures at 3 and 9 o'clock area of the cervix and excision of lesion, transformation zone and endocervical canal with wedge-shabed scalpel under general anesthesia. LEEP conization was done under general anesthesia and a radiofrequency device with 3.8 MHz frequency and 140 W output power was used for the procedure. Excision was done by L-armed triangular probe. After placement of the vaginal plastic speculum, the triangular excision probe was applied at 12 o'clock to the cervix, the probe was rotated 360° clockwise and the excision including lesion-transformation region and endocervical canal completed in one go. Appropriate excisional probes were used according to the size and condition of the cervix and the lesion (i.e., small, medium, medium extended and large). In this study, cold-knife conization and triangular probe excision/LEEP conization techniques were compared in terms of surgical border positivity.

Results: Surgical margin was negative at 90 (80.4%) cases and positive at 22 (19.6%) cases. Of the 22 positive cases, cold-knife conization was applied in 14 (14/45; 31.1%), LEEP conization with triangle-probe in 8 cases (8/67; 11.9%). Margin positivity at triangle-probe LEEP conization technique was significantly lower compared to cold-knife conization ($p=0.012$). After 14 patients with chronic cervicitis as a result of conization were excluded, margin positivity at triangle-probe LEEP conization technique was significantly lower compared to cold-knife conization (0.045).

Conclusion: Conization (cold-knife or electrosurgical) is standard approach for the cervical intraepithelial neoplasia/lesions. Regardless of the preferred surgical technique, the main goal is the complete excision of the cervical transformation zone and the squamocolumnar junction, including the endocervical canal. Surgical margin positivity in the excision material is an important indicator of incomplete technique/insufficient treatment. Surgical margin positivity at conization is important for the disease persistence and recurrence. For this reason, the surgical technique to be applied should be capable of providing the highest efficiency. According to the literature; surgical margin positivity

for loop-probe (classic LEEP) is 9-51%; 14-31% for cold-knife; and 0-39% for triangular-probe conization. In our study, the surgical border positivity with trianguler probe LEEP method was significantly lower than with cold-knife method. At conization procedure, the triangle-probe LEEP conization technique might be considered first because of the high surgical margin negativity. LEEP seems advantageous in terms of surgical border positivity. Standardization of the conization procedure with the cold knife method might be difficult.

Keywords: Cervix, conization, electrosurgery, radiofrequency, triangle-probe

[OP-149]

Does accompanying endometriosis portend better prognosis in endometrioid carinoma of the ovary?

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Objective: The purpose of this study was to compare the prognoses of women with endometrioid type ovarian carcinoma (ETOC) arising from endometriosis that have undergone optimal debulking to those of women with ETOC not arising from endometriosis treated in the same fashion.

Material and Methods: A dual-institutional, retrospective database review was performed to identify patients with ETOC who had been treated with upfront surgery between January 2006 and December 2016. Women were included, if they previously underwent primary surgical treatment including total hysterectomy plus bilateral salpingo-oophorectomy with bilateral pelvic and para-aortic lymphadenectomy and other surgical procedures resulting in maximal or optimal cytoreductive surgery and subsequently (if necessary) received paclitaxel plus carboplatin as the primary chemotherapy regimen. Patients were divided into two groups according to the detection of cancer arising in endometriosis or not, on the basis of pathological findings. Demographic, clinicopathological and survival data were collected and the two groups were compared in terms of clinicopathological features and prognosis.

Results: One hundred and nine women who met the inclusion criteria were included. Of these, 51 (46.8%) patients have been identified as ETOC arising in endometriosis, while 58 (53.2%) had no concomitant endometriosis (Table 1). ETOC arising in endometriosis was found more frequently in younger women and had a higher incidence of early-stage disease when compared to ETOC patients without endometriosis (Table 2). With a median follow-up of 34 months, the 5-year disease free survival (DFS) rate of the patients with ETOC arising in endometriosis was significantly longer than that of women who had ETOC without endometriosis (93% vs 56.9%; p<0.001) (Figure 1). Similarly, the 5-year overall survival (OS) rate of the women with ETOC arising in endometriosis was 98% whereas this figure was found to be 63.7% for the women who had ETOC without endometriosis (p<0.001) (Figure 2). Univariate analysis revealed that, age >50 years, absence of endometriosis, positive lymphovascular space invasion (LVSI), Grade 3 tumor, Stage 3-4 disease, retroperitoneal LN metastasis and omental involvement were significant factors for decreased DFS. At the end of multivariate analysis, absence of endometriosis [hazard ratio (HR): 6.9, 95% confidence interval (CI): 1.17-41.37, p=0.033], and retroperitoneal LN metastasis (HR: 7, 95% CI: 1.25-39.16, p=0.027) remained as independent risk factors for decreased DFS (Table 3). Univariate analysis revealed Grade 3 tumor, absence of endometriosis, positive LVSI and retroperitoneal LN metastasis as significant factors for decreased OS. However, retroperitoneal LN metastasis (HR: 13.9, 95% CI: 1.7-114.76, p=0.014) was found to be solely independent risk factor for decreased OS at the end of multivariate analysis (Table 4). At the time of reporting of the 109 patients with ETOC, 95 (87.2%) were still alive whereas 14 patients (12.8%) died.

Conclusion: Patients with ETOC arising in endometriosis had a significantly better DFS and OS, compared to the patients who had ETOC without endometriosis, therewithal absence of endometriosis seems to be an independent prognostic factor for recurrence in patients with ETOC.

Keywords: Ovarian neoplasms, endometrioid type ovarian carcinoma, endometriosis, prognosis

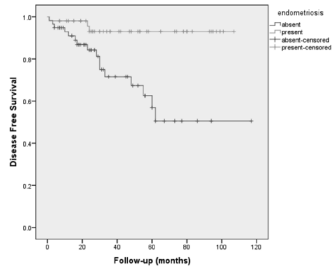


Figure 1. Comparison of disease-free survival curves of women with (n=51) and without (n=58) endometriosis

Table 1. Baseline characteristics of the patients

Characteristic	Values
Age, years (median)	50 (22-77)
Menopausal status, n	
Postmenopausal	50 (45.9%)
Premenopausal	59 (54.1%)
Grade, n	
1	40 (36.7%)
2	44 (40.4%)
3	25 (22.9%)
LVSI, n	
Yes	71 (65.1%)
No	22 (20.2%)
Unknown	16 (14.7%)
Tumor Size, cm (median)	8 (1-24)
Serum CA 125 (median, IU/ml)	78 (5-9179)
Bilaterality, n	
Yes	25 (77.1%)
No	84 (22.9%)
Ascites, n	
Yes	30 (27.5%)
No	79 (72.5%)
Peritoneal cytology, n	
Yes	27 (24.8%)
No	82 (75.2%)
Number of LNs removed (median)	51 (18-117)
Number of pelvic LNs removed (median)	33 (16-70)
Number of para-aortic LNs removed (median)	14 (2-71)
Retroperitoneal LN metastases, n	
Yes	20 (18.3%)
No	89 (81.7%)
Omental Metastasis, n	
Yes	13 (11.9%)
No	96 (88.1%)
Stage, n	
I	45 (41.3%)
II	8 (7.3%)
III	56 (51.4%)
Adjuvant Treatment, n	
Yes	26 (23.9%)
No	83 (76.1%)
Recurrence, n	
Yes	15 (13.8%)
No	94 (86.2%)
Status, n	
Alive	95 (87.2%)
Dead	14 (12.8%)
Endometriosis, n	
Yes	***51 (46.8%)***
No	***58 (53.2%)***

Abbreviations:
n: Number LVSI: Lymphovascular space invasion LN: Lymph node

Table 2. Baseline characteristics of the patients with respect to endometriosis

Characteristic	Endometrosis (-) (n=58)	Endometrosis (+) (n=51)	p
Age, years (median)	52.5 (22-77)	47 (25-74)	**0.008**
Menopausal status, n			
Postmenopausal	33 (56.9%)	17 (33.3%)	**0.02**
Premenopausal	25 (43.1%)	34 (66.7%)	
Grade, n			
1	12 (20.7%)	28 (54.6%)	**0.001**
2	27 (46.6%)	17 (33.3%)	
3	19 (32.8%)	6 (11.8%)	
LVSI, n			
Yes	17 (29.3%)	5 (9.8%)	**0.016**
No	34 (58.6%)	37 (72.5%)	
Unknown	7 (12.1%)	9 (17.6%)	
Tumor Size, cm (median)	9 (1-23)	6 (1-24)	0.1
Serum CA 125 (median, IU/ml)	97 (10-9179)	42 (5-1280)	0.06
Bilaterality, n			
Yes	19 (32.8%)	6 (11.8%)	**0.009**
No	39 (67.2%)	45 (88.2%)	
Ascites, n			
Yes	16(27.6%)	14 (27.5%)	0.9
No	42 (72.4%)	37 (72.5%)	
Peritoneal cytology, n			
Yes	17 (29.3%)	10 (19.6%)	0.24
No	41 (70.7%)	41 (80.4%)	
Number of LNs removed (median)	50 (18-100)	51 (22-117)	0.7
Number of pelvic LNs removed	32 (16-69)	35 (18-70)	0.57
Number of para-aortic LNs removed	15 (2-57)	13 (2-71)	0.65
Retroperitoneal LN metastases, n			
Yes	14 (24.1%)	6 (11.8%)	0.096
No	44 (75.9%)	45(88.2%)	
Stage, n			
I-II	21 (36.2%)	32 (62.7%)	**0.005**
III	37 (63.8%)	19 (37.3%)	
Adjuvant Treatment, n			
Yes	45 (85.6%)	38 (74.5%)	0.74
No	13 (22.4%)	13 (25.5%)	

Abbreviations:
n: Number LVSI: Lymphovascular space invasion LN: Lymph node

Table 3. Univariate and multivariate prognostic factors for disease free survival and overall survival in ETOC

Variable	Univariate analysis			Multivariate analysis		
	HR	95% CI	P	HR	95% CI	P
Age (≤50 vs. >50)	2.6	1.012-7.04	0.047			
Grade (3 vs.1)	5.1	1.31-19.83	0.019			
LVSI	5.9	1.88-13.02	0.001			
Omental Metastasis	3.3	1.27-8.86	0.014			
Stage(I/II vs III)	2.7	1.02-7.174	0.045			
Absence of Endometriosis	***6.1***	***1.76-20.91***	***0.001***	***6.9***	***1.17-41.37***	***0.033***
LN metastasis	***6.2***	***2.48-15.4***	***< 0.001***	***7***	***1.25-39.16***	***0.027***

Abbreviations:
EOC: Epithelal ovarian cancer
LN: Lymph node
LVSI: Lymphovascular space invasion

Table 4. Univariate and multivariate prognostic factors for disease free survival and overall survival in ETOC

Variable	Univariate analysis			Multivariate analysis		
	HR	95% CI	P	HR	95% CI	P
Age (≤50 vs. >50)	3	0.94-9.67	0.062			
Grade (3 vs.1)	6.2	1.26-31.26	0.025			
LVSI	4.1	1.3-12.9	0.016			
Bilaterality	2.5	0.88-7.37	0.082			
Stage(I/II vs III)	2.9	0.91-9.33	0.058			
Absence of Endometriosis	7.1	1.87-109.7	0.001			
LN metastasis	***5.2***	***1.8-15.06***	***0.001***	***13.9***	***1.7-114.76***	***0.014***

Abbreviations:
EOC: Epithelal ovarian cancer
LN: Lymph node
LVSI: Lymphovascular space invasion

[OP-150]

Pap-smear results: The evaluation of 47.954 cases retrospectively

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Objective: The evaluation of Pap-smear results retrospectively.
Material and Methods: Between January 2008 and December 2014 Pap-smear results of patients who consult University of Health Sciences, Diyarbakır Gazi Yaşargil Training and Research Hospital, Clinic of Obstetrics and Gynecology to make smear test, was evaluated retrospectively.
Results: The researching was made with 47.954 cases between January 2008 and December 2014. While 98.33% (n=47.150) examples of Pap-smear are enough for evaluation, 1.67% (n=804) of them are claimed as insufficient sample for analysis. Epithelial cell anomaly (ECA) rate in examples of Pap-smear was founded as 2.03% (n=976). According to frequency, the distribution of ECA is that: atypical squamous cells of undetermined significance (ASCUS) 1.77% (n=850), low-grade squamous intraepithelial lesion 0.15% (n=73), high-grade squamous intraepithelial lesion 0.05% (n=24), atypical squamous cells-high-grade intraepithelial lesion cannot be exclude 0.03% (n=19), atypical glandular cells-not otherwise specified 0.014% (n=7). Squamous carcinoma was detected in 0.006% (n=3) of cases.
Conclusion: By comparison with literature ECA rate is quite a little in our researching and among anomalies mostly ASCUS is observed.
Keywords: Pap-smear, epithelial cell anomaly, atypical squamous cells of undetermined significance

[OP-151]

The incidence of co-twin pregnancy increases in hydatidiform mole cases

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Objective: A co-twin may occur alongside either complete or partial hydatidiform mole in one per 20.000-100.000 pregnancies. The study was planned to investigate the incidence of co-twin pregnancy in the patients presenting with gestational trophoblastic disease (GTD).
Material and Methods: The present study was conducted in a tertiary center as a prospective study over a period of 3 years. Total 188 cases with GTD were included the study. In additon to co-twin pregnancy all subjects having GTD were evaluated on the basis of their mean age, theca luetin cyst, preeclampsia, hypertroidism, postmolar GTD history, hyperemesis gravidarum, need for chemotherapy, unembryonic pregnancy, blood group and villous structure.
Results: The incidence of co-twin pregnancy accompanying gestational trophoblastic disease was 9% with the mean age of patients being 30.3 years. 80% of all participants had the diagnosis of partial mole. The remaining 20% had the diagnosis of complete mole. Two most common chief complaints at presentation was vaginal bleeding

(65.6%) and hypertrodism (23.7%). The incidence of hyperemesis was (20%). While the occurence of theca lutein cyst was 8.7% the incidence of preeclampsia and unembryonic pregnancy were 2.5% and 2.5% respectively. 28.7% of the cases developed postmolar GTD and 11.2% out of the required chemotherapy. Most common blood group of subjects was ARh (+) followed by 0 (+). Histopathological evaluation revealed villous structure formation in 60% of all subjects.

Conclusion: Detection of high co-twin pregnancy rates contrary to expectations suggest that biparental triploid genotype incidence increase in cases with hydatidiform mole.

Keywords: Biparental triploid genotype, co-twin pregnancy, gestational trophoblastic disease

[OP-152]

Cytological assessment of endometrial washings obtained with Karman cannula using a liquid-based preparation method for the dtection of endometrial pathologies

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Objective: The aim of this study was to evaluate the diagnostic efficacy and utility of liquid-based cytology in ThinPrep (Cytyc Corporation, Boxborough, MA) for endometrial lesions in patients presenting with abnormal uterine bleeding.

Material and Methods: Two hundred and thirteen women scheduled for dilatation and curettage because of abnormal uterine bleeding were enrolled in the study. After providing informed consent, all the women proceeded sequentially to endometrial cytology and then dilatation and curettage.

Results: In the premenopausal group cytological failure was 4.8%, histopathological failure was 2.4%; cytologic insufficiency in the postmenopausal group was 2.1% and histopathologic insufficiency was 19.6%. When cytologic and histopathological sufficiency rates were compared in all cases, cytologic insufficiency was 4.2% and histopathologic insufficiency was 6.1%. This difference was statistically significant ($p<0.039$). The diagnostic accuracy, sensitivity, specificity, PPV ande NPV of the liquid based endometrial cytology for premenopausal patients were 96.79%, 58.33%, 97.92%, 70% and 96.58%, respectively. In the postmenopausal cases, the accuracy of diagnosis of endometrial cytology was 97.30%, sensitivity 100%, specificity 96.67%, PPV 87.50% and NPV 100%. When cytologic and histopathologically inadequate cases were excluded, no cytologic and histopathological abnormal findings were found in endometrial thickness cut-off ≤5 mm for all patients.

Conclusion: The use of liquid-based cytology with TVS may contribute to increasing the diagnostic accuracy of the test and reduce unnecessary D&C for women. When TVS is used as a triage indicator; regardless of menopausal status in ≤5 mm endometrial thickness cases, endometrial cytology is an absolutely reliable method for detecting cancer.

Keywords: Endometrial washing, liquid-based cytology, endometrial lesions

Table 1. Performance characteristics of endometrial cytology*

Cytology	Sensitivity	Specificity	PPV	NPV	AR
All patients	14/19 (73.68%)	170/174 (90.70%)	14/18 (77.78%)	170/175 (97.14%)	184/193 (95.34%)
Premenopausal	7/12 (58.33%)	141/144 (97.92%)	7/10 (70.00%)	141/146 (96.58%)	151/156 (96.79%)
Postmenopausal	7/7 (100.00%)	29/30 (96.67%)	7/8 (87.50%)	29/29 (100.00%)	36/37 (97.30%)

PPV: Positive Predictive value, NPV: Negative Predictive value, AR: Accuracy rate

[OP-153]

Uterine smooth muscle tumor of uncertain malignant potential: A multicenter retrospective study

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Objective: The term smooth muscle tumor of uncertain malignant potential (STUMP) was first used by Kempson in 1973 for tumours that were clinically malignant, but by using the available diagnostic criteria at the time, a correct diagnosis of sarcomas could not have been made. According to the current World Health Organization classification, if a tumour shows any unusual combinations of histologic features that do not satisfy the Stanford criteria for Leiomyosarcoma, a diagnosis of uterine STUMP is appropriate. This retrospective study was designed to evaluate the clinicopathologic features and outcomes of a cohort of patients diagnosed with uterine STUMP (uSTUMP) seen at Turkey.

Material and Methods: The databases of seven Obstetrics and Gynecology departments from Turkey were reviewed retrospectively using patient charts. Patients who were operated with a diagnosis of uSTUMP were analysed according to included age at diagnosis, recurrence rate, and disease-free and overall survival in seven tertiary centers between January 2000 and January 2015. Cases were defined as STUMP if they fit one of the following sets of criteria: (1) tumor cell necrosis, no atypia, and a mitotic index <10 mitoses per 10 highpower fields; (2) diffuse atypia, no tumor cell necrosis, and a mitotic index <10

mitoses per 10 high-power fields; (3) no tumor cell necrosis, no atypia, and a mitotic index >20 mf/10 HPF; (4) cellularity/hypercellularity and a mitotic index >4 mitoses per 10 high-power fields; (5) irregular margins or vascular invasion at the periphery of the tumor.

Results: Forty-tree patients with uterine STUMP were identified and included in the study. The mean age at diagnosis was 46 years (range 26-66 years). Five patients had a recurrence during the follow-up period. All patients who had recurrent disease was found to have a leiomyosarcoma at the time of recurrence. In Table 1 we present the demographic and clinical characteristics of the patients in recurrence group and nonrecurrence group.

Conclusion: In contrast to high-grade leiomyosarcoma, the rate of tumour growth in STUMPs, followed by recurrence, is slower and the recurrence is often delayed, on average 46.9 months (range 15 to 108 months) after initial diagnosis. Our results suggest that in this cohort of patients with uterine STUMP the recurrence rate was 11%. Recurrences can be in the form of leiomyosarcoma. Our experience, and that of others, indicate that STUMP should be managed in a conservative manner, but with appropriate follow ups, especially for tumours that are large and contain severely atypical cells in a diffuse distribution. Patients with STUMP should be counseled regarding the potential for recurrence as leiomyosarcoma. The ideal criteria for follow-up remain elusive. Patients with STUMP may require closer surveillance than a yearly examination and may need a consultation with a gynecologic oncologist. More studies are encouraged to determine the true recurrence rate of STUMP tumors along with the clinical behavior of this rare entity.

Keywords: Leiomyosarcoma, recurrence, uterine smooth muscle tumors of uncertain malignant potential

Table 1. Demographic and clinical characteristics of the patients with STUMP

Characteristic	Nonrecurrence group (n = 38)	Recurrence group (n = 5)	P-value*
Demographics			
Age (years)	43.34±9.34	52.4±11.41	0.09
Tobacco use	15	2	0.98
Pelvic radiation therapy	0	0	
Laboratory findings			
CA125 (U/mL)	33.22 (range 5 – 222)	18 (range 6 – 30)	0.48
Ultrasound findings			
Mean Tumor Diameter (cm)	11.74 ± 5.06	10.48±2.96	0.58
Surgical indications			
Myoma uteri	31	2	**<0.03**
Pelvic mass investigation	7	3	**<0.03**
Type of surgery			
TAH	8	0	0.25
TAH-BSO	18	4	0.16
Myomectomy	12	1	0.59
Outcome (months)			
Alive with no evidence of disease at last follow-up	38.28±36.55	25±20.83	0.43
Follow-up time	38.28±36.55	34.8±23.91	0.83

Values for continuous variables are mean ± SD. P value <0.05 is considered statistically significant.

[OP-154]

Maximal cytoreduction is related to improved disease-free survival in low-grade ovarian serous carcinoma

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Objective: To evaluate the factors predicting oncologic outcomes in low-grade ovarian serous carcinoma (LGOSC).

Material and Methods: Seventy patients with LGOSC between January 1991 and December 2017 were included in the study. According to the residual disease present at the end of the initial cytoreductive surgery (CRS), surgical outcomes are defined as follows: maximal CRS for absence of macroscopic residual tumors, optimal CRS for macroscopic residual tumors with diameters ranging from 0.1 to ≤1 cm diameter, and suboptimal CRS for macroscopic residual tumors measuring >1 cm in diameter. The Kaplan-Meier method was used in the assessment of survival outcomes. The level of statistical significance was set at a p value of <0.05.

Results: The median age of all cohort was 47 years (range, 22-74). The median preoperative CA-125 level was 348 mL/IU (range, 12-4648). Sixty-one patients (87.1%) underwent lymphadenectomy. The median number of removed lymph nodes was 54 (range, 7-163). Surgical outcomes were suboptimal in 3 (4.3%) patients, optimal in 8 (11.4%) patients, and maximal in 59 (84.3%) patients. Adjuvant treatment was performed to 47 patients (67.1%) and was chemotherapy for all of them. In all, disease failure occurred in 23 (32.9%) patients. Five-year disease-free survival (DFS) and cancer-specific survival (CSS) were 61% and 83%, respectively. Disease stage and surgical outcomes were related to DFS (p<0.05). Compared with maximal CRS, the presence of residual tumors of any size (suboptimal and optimal debulking) was related to three-fold increased risk of disease failure (recurrence or progression) [Hazard Ratio (95% confidence interval): 3.00 (1.27-7.09); p=0.012]. CSS was associated with disease stage alone (p=0.03). Advanced stage was related with lower DFS and CSS.

Conclusion: Maximal CRS provides improved DFS. The main goal in the management of LGOSC should be achieving no visible residual disease.

Keywords: Serous carcinoma, ovarian cancer, survival, surgery

Table 1. Prognostic factors for disease-free survival (DFS) and cancer-specific survival (CSS) in low grade ovarian serous carcinoma

Factors		5-year DFS (%)	p	5-year CSS (%)	p
Age	<47	68.7	0.096	90.3	0.226
	47≤	53.8		77	
Preoperative CA125 Level (IU/mL)	<348	57.7	0.370	63.5	0.472
	348≤	45		80	
Stage	1&2	100	<0.001*	100	0.030*
	3&4	39.6		73.5	
Status of lymphadenectomy	No	55.6	0.296	88.9	0.361
	Yes	62.3		81	
Status of Lymph node metastasis	Absent	70.5	0.154	88	0.431
	Present	50.3		71	
Status of residual disease at the completion of initial surgery	Optimal + suboptimal cytoreduction (R: 0.1≤ cm)	32	0.004*	67.5	0.096
	Maximal cytoreduction (R: microscopic)	68		87.5	

p<0.05 is statistically significant. ¥: Including the progressive disease or partial clinical response R: Residue

Table 2. Multivariant analysis for disease failure (progression or recurrence) in low grade ovarian serous carcinoma

Factors	HR (95% CI)	p
Age (<47 vs. 47≤; years)	1.96 (0.82-4.68)	0.126
Surgical outcome ¶ (suboptimal and optimal CRS vs. maximal CRS)	3.16 (1.32-7.5)	0.009*

p<0.05 is statistically significant. HR: Hazard ratio, cytoreductive surgery: CRS. Surgical outcome
¶: Status of residual disease at the completion of initial surgery Maximal CRS=no macroscopic residue; Suboptimal and optimal CRS=residue: 0.1 cm ≤ in diameter

[OP-155]

The impact of LEEP and cold-knife conisation training model on the surgical management of preinvasive cervical lesions

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Objective: To evaluate the impact of loop electrosurgical excision procedure (LEEP) and cold-knife conisation training model on the surgical education and confidence level of gynecologists.

Material and Methods: LEEP and cold-knife conisation hands on training model was shaped by a sausage; 2.5 cm in diameter as cervix, plastic cup as vagina, foam rubber as posterior and anterior fornix and cotton plate as leukoplakia area (Figure 1). Totally, 34 participants performed LEEP and cold-knife conisation on the training model with the guidance of mentors after theoretical lessons about transformation zone, indications and surgical technique of LEEP and cold-knife conisation. Afterwards, an internet based survey was held to measure the effectivity of this surgical model and participants gave points to their learning and confidence levels. Satisfaction and success scores were rated between 1 (very bad) and 5 (very good). Two-way repeated measure Anova was used for the statistical analysis of pre-post test confidence levels and Mann-Whitney U test was used for the comparison between two groups.

Results: The training model was found to be highly similar to the real anatomy and 34 participants evaluated the educative level of theoretical lessons (Table 1). Educative level of the course on the basic surgical steps of LEEP and cold-knife conisation procedures was evaluated with regard to the previous application of LEEP and cold-knife conisation and both of the groups had similar learning gains (Table 2). Moreover, pre-course and post-course confidence levels during the application of the procedure were also evaluated with regard to previous practice of LEEP and cold-knife conisation (Table 3). Despite a significantly high pre-course confidence level for participants who performed LEEP (p=0.001) and cold-knife conisation (p=0.011) previously, post-course confidence levels were similar in both groups (p=0.127, p=0.845, respectively). In both groups, participants had an increase in mean confidence scores and that was statistically significant for participants who have not performed the procedure previously [p=0.003 (Figure 2), p=0.002 (Figure 3), respectively].

Conclusion: This surgical training model on LEEP and cold-knife conisation formed a good educative level for participants independent from their previous practice of procedure. This model will take part in the improvement of the skills and confidence level of gynecologists especially residents, for the surgical management of preinvasive cervical lesions.

Keywords: Leep, conisation, training, cervix, smear

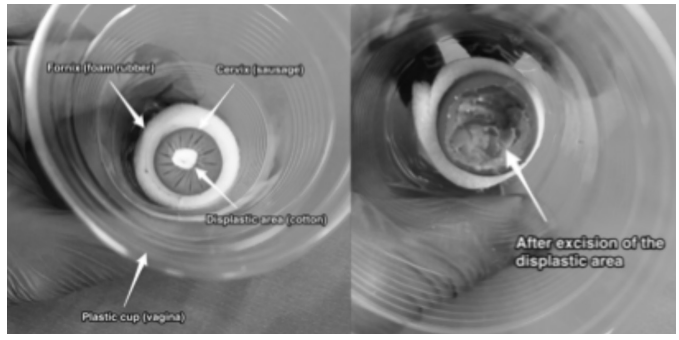


Figure 1. LEEP and cold-knife conisation training model

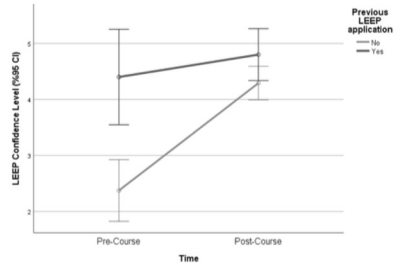


Figure 2. The increase in confidence level for participants who had previous application of LEEP or not, the increase is statistivally significant for non-practitioners (p=0.003)

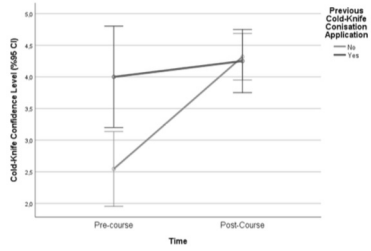


Figure 3. The increase in confidence level for participants who previous application of cold-knife conisation or not, the increase is statistical significant for non-practitioners (p=0.002)

Table 1. General characteristics of the LEEp and cold-knife conisation course (mean score demonstrates the educative level of the course, between 1-5 points

Parameters		Number (%)
Age of participants	25-30	21 (61.8)
	30-35	11 (32.4)
	35-40	1 (2.9)
	>40	1 (2.9)
Resident		29 (85.3)
Specialist		5 (14.7)
		Mean±Sd
Theoretical lessons	Transformation zone	4.18±0.83
	Indications of LEEP and cold-knife conisation	4.18±0.83
	LEEP surgical technique	4.32±0.77
	Cold-knife conisation surgical technique	4.15±0.99
Similarity to the real anatomy		3.94±1.15
Learning how to control bleeding		4.35±0.88

Table 2. Educative level of the course on the basic steps of LEEP and cold-knife conisation procedures

Variables	Previous LEEP application			Variables	Previous cold-knife conisation application		
	Yes (n=10) median (IQR)	No (n=24) median (IQR)	p		Yes (n=12) median (IQR)	No (n=22) median (IQR)	p
Good handling of LEEP loop electrodes	5.0 (1)	4.0 (1)	0.118	Good handling of knife	5.0 (2)	5.0 (1)	0.606
Proper excision of displastic area	5.0 (0)	5.0 (2)	0.159	Proper excision of the displastic area	5.0 (2)	5.0 (1)	0.736
Excision in one piece	5.0 (0)	5.0 (2)	0.238	Appropriate suturing at 3/9 o-clock	5.0 (1)	5.0 (1)	0.929
Unharming the vaginal wall during excision	5.0 (0)	4.5 (1)	0.137	Unharming the vaginal wall during knife excision	4.5	4.5	0.643
Educational level of LEEP training	5.0 (0)	4.0 (1)	0.101	Educational level of cold-knife conisation training	4.5 (2)	5.0 (1)	0.403

Table 3. Pre-course and post-course confidence levels with regard to the previous application of LEEP and cold-knife conisation

Variables	Pre-Course		Post-Course		Time		Group x Time	
	Previous application		Previous application					
	Yes	No	Yes	No	p	η^2	p	η^2
Leep	4.40±0.70	2,38±1.50	4.80±0.42	4.29±0.81	< 0.001	0.363	0.003	0.156
Cold-Knife	4.00±1.04	2,55±1.50	4.25±0.87	4.32±0.84	< 0.001	0.312	0.002	0.177

[OP-156]

SATB2 expression in cervical squamous cell carcinoma, is there any relationship with the prognosis?

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Objective: Cervical cancer is third most common cancer in women worldwide and the second most common cancer in developing countries. The importance of the cancer depends on its high prevelance and young average age at death. The special AT-rich sequence-binding protein 2 (SATB2) is a nuclear matrix-associated protein that is essential for both growth and development. SATB2 was discoveried in 2003, and up to this time there the roles of this protein has attracted numerous authors curıocıty. SATB2 expression is tissue specific. Colon, lung, breast, pancreas, renal, laryngeal, esophageal carcinomas and bone cancers are a have been associated with SATB2 expression. The effects of SATB2 expression on prognosis and metastasis were also doucumented in some studies. Wang et al. reported that downregulated expression of SATB2 is associated with metastasis and poor prognosis in colorectal carcinomas. Loss of SATB2 expression was associated with recurrence and high tumor grade in laryngeal squamous cell carcinoma. In this study we aimed to show SATB2 expression in cervical squamous cell carcinoma (SCC) and to determinate the relationship with the prognosis.

Material and Methods: The samples included in this study were obtained from the archives of Pathology Department, at Gaziantep University. The study group consisted of 55 cases of SCC. The specimens of SCC were derived from patients who had undergone total hysterectomy. Four-micron sections were taken from appropriate formalin-fixed-paraffin-embedded tissue blocks. Immunohistochemical antibody of SATB2 was studied using an automated immunohistochemistry-staining device (Ventana Ultra Auto-Stainer). The nuclear staining for SATB2 were accepted as positive if more than 1% of tumor cells are positive. Normal colon tissue was used as a positive control.

Results: Only two of the 55 cases showed nuclear staining with SATB2. The small number of cases with positive SATB2 expression did not allow for any firm conclusions on its prognostic value.

Conclusion: To best of our knowledge our study is the first study that shows the expression of SATB2 in cervical SCC. Further studies with larger series are needed to determine SATB2 expression in cervical SCCs.

Keywords: Cervix, SATB2, SCC

[OP-157]

Colposcopy results in smear negative, high-risk HPV positive patients

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Objective: We aimed to determine the ratios of 13 high-risk HPV types in cases with high risk HPV positivity without cervical smear pathology referred to our clinic and to determine the relation of HPV types with factors such as age, parity and menopausal status.

Material and Methods: Two hundred and forty one cases were included in the study, which were referred to us because of HPV positivty and colposcopically biopsied between January 2014 to January 2018. The cervical smear and HPV DNA results of the patients were obtained from the Cancer Early Diagnosis Screening and Training Center reports. Colposcopic biopsy results and other parameters were obtained from our hospital registry system. Patients with pathology in cervical smear results were excluded from the

study. HPV results were analyzed separately. HPV prevalences were studied. The relationship between variables such as age, parity, menopausal status and HPV types was examined. Results of colposcopic biopsies were classified as normal, CIN I, CIN II, CIN III, and CIS (cervical carcinoma insutu).

Results: The mean age of 241 patients included in the study was 46.1±8.8. The parity average was 2.4±1.1. Sixty five of the patients (27%) were postmenopausal. Of the 241 HPV - positive patients, 172 (71,4%) had single, 48 (19.9%) had two, 15 (6.2%) had three, 5 (2.1%) had four, 1 (8.4%) had five high - risk HPV viruses. The frequency ranking of HPV types was as follow; 16 (93 patients), 31 (46 patients), 51 (29 patients), 56 (26 patients), 18 (25 patients), 52 (24 patients), 35 (21 patients), 58 (20 patients), 39 (16 patients), 68 (13 patients), 45 (11 patients), 33 (8 patients), and 59 patients (6 patients). According to the HPV types, the average ages were as follow; 18 (43,6 years), 33 (40,1 years) and 51 (41,9 years) were younger than the average age. Thirty five (48.7 years), 39 (48.5 years), 52 (49.1 years) and 68 years (51.3 years) were older than the average age. Sixteen (44.9 years), 31 (47.9 years), 45 (44.3 years), 56 (47.3 years), 58 (46.9 years) and 59 (46.7 years) was smilar the average age. There was no significant difference between the parities according to HPV types (2 to 2.7). According to the HPV types, the menopausal state was as follows; 39 (50%), 56 (50%) and 68 (53,8%) were mostly observed in the postmenopausal period; A small proportion of 33 cases (12,5%) was postmenopausal. The rate of severe dysplasia according to colposcopic biopsy related with HPV types was; 58 (40%), 56 (30.8%), 18 (28%), 45 (27.3%), 31 (26.1%), 39 (25%), 59 (16.7%), 35 (14.3%), 51 (13.8%), 33 (12.5%), 16 (11.8%), 52 (8,3%).

Conclusion: The prevalence of HPV types, the age at which they are seen, the menopausal status and the potential for the formation of severe dysplasia are highly variable. We think that routine screening programme, colposcopy indications and vaccination program should cover all HPV types according to data.

Keywords: Colposcopy, smear negative, high-risk HPV positive

[OP-158]

Evaluating prognostic factors for the recurrence in stage I endometrial cancer

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Objective: To evaluate the prognostic factors for the recurrence in patients with early stage (IA/IB) endometrium cancer.

Material and Methods: All patients with FIGO Stage 1 endometrial adenocarcinoma who were treated surgically at a university based gynecologic oncology clinic between January 2012 and December 2016 were recruited in this single center retrospective cohort study. All of the patients underwent complete surgical staging. Demographic characteristics, pathologic risk factors, surgical outcomes and vaginal brachytherapy status were recorded. Data about the presence or absence of lymph vascular space invasion (LVSI), tumour grade, histological type and depth of myometrial invasion were obtained from the pathology samples. Exclusion criteria included patients diagnosed other than endometrial adenocarcinoma, received neoadjuvant therapy and adjuvant therapy other than vaginal brachytherapy. Main outcome was the presence of recurrence. Samples were tested with Shapiro-Wilk test to determine normality of distributions. Continuous variables vwere compared with Student-t test. Categorical variables were compared with Chi-square test. A p value of <0.05 was considered statistically significant. Prognostic factors were evaluated by the logistic regression model individually and in combination.

Results: A total of 231 patients were included in this study. Tumor recurrence occured in 13 patients (5.6%). Median follow-up period was 31 months (3-109 months) and median recurrence period 29.5 months (8-77 months). Mean age of recurrence group was 64.25±11.29 and mean age of disease-free group 59.65±10.42 (p=0.83). Six patients in adjuvant vaginal brachytheraphy group had recurrent disease and vaginal cuff recurrence was detected in three of them. 2 patients had recurrence in lung and the other in bowel. Two patients in non ajduvant brachytheraphy group had vaginal cuff, bowel, lymph node recurrence respectively and the other bone recurrence. Univariate analysis revealed myometrium invasion and presence of LVSI as significant prognostic factors associated with recurrence (p=0.049 and p=0.025). Only, presence of LVSI was associated with recurrence on multivariate analysis statistically significant (OR 3.72; 95% CI 1.19-11.5; p=0.023).

Conclusion: LVSI presence is the only predictor of recurrence in Stage 1 endometrium cancer. As a result, planning of the adjuvant treatment after surgical staging in Stage 1 endometrium cancer should be made by considering the LVSI status.

Keywords: Early stage, Endometrium cancer, prognostic factors, recurrence

Table 1. Prognostic factors in early stage endometrium cancer for recurrence

Prognostic factors	Recurrence (n)	No recurrence (n)	p
Grade 1-2 Grade 3	9 4	191 27	0.093
LVSI + LVSI -	7 6	52 166	0.025
Myometrial invasion <1/2 Myometrial invasion >1/2	4 9	127 91	0.049
Vaginal brachytheraphy + Vaginal brachytheraphy -	6 7	66 152	0.164
Tumor size >2 cm Tumor size <2 cm	6 7	85 133	0.633
n: Number of patients			

Table 2. Features of the patients with recurrence

Patient	Age	Grade	Stage	LVSI	Tumor size >2 cm	Brachytheraphy	Recurrence location	Recurrence time (months)
1	45	1	1A	+	--	--	Lymph node	8
2	52	2	1A	+	--	--	Bowel	77
3	58	2	1A	--	+	--	Bowel	46
4	64	3	1A	+	+	+	Bowel	28
5	53	1	1B	+	--	+	Lung	46
6	54	2	1B	+	+	--	Bone	30
7	62	1	1B	--	--	--	Cuff	10
8	62	2	1B	+	+	--	Lymph node	29
9	68	3	1B	+	+	+	Lung	25
10	72	2	1B	+	--	+	Cuff	48
11	72	3	1B	--	--	+	Cuff	42
12	77	3	1B	--	--	--	Cuff	10
13	85	2	1B	--	--	+	Cuff	23

[OP-159]

Serum endocan levels in early and late onset preeclampsia

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Objective: Preeclampsia (PE) is diagnosed in 10% of pregnancies and it is one of the major causes of maternal and perinatal mortality and morbidity. Endothelial cell damage plays a major role in pathogenesis of preeclampsia and research is made to improve PE screening tests. However, an endothelial marker specific to preeclampsia has not been identified. Endocan (ESM-1) is an endothelial marker proteoglycan for new onset hypertension and inflammation. In the literature, there is few research about endocan levels in preeclampsia and no consensus has been reached. Early onset preeclampsia (EO-PE) is more severe, seen with diffuse plasental pathologies and differ from late onset preeclampsia (LO-PE) in pathogenesis. Therefore, investigation of endocan levels in subgroups as EO-PE and LO-PE may show significance. The purpose of this research is to investigate serum endocan levels of patients diagnosed with early onset and late onset preeclampsia, with respect to the control groups, as there is difference in PE severity and pathogenesis.

Material and Methods: This is an observational case-control study and conducted on 41 preeclamptic patients (early onset PE n=25, late onset PE n=16) and 37 normotensive controls (<34 weeks gestation n=22, ≥34 weeks gestation n=15) matched for gestational age and BMI. Maternal serum level of endocan is measured with an enzyme-linked immunosorbent assay kit.

Results: There was no significant difference in median (IQR) of serum endocan levels between PE and control groups [468,8 (169,7) ng/L and 462,4 (3211) ng/L respectively, p>0,05]. There was no significant difference between median (IQR) of EO-PE and LO-PE serum endocan levels [458.8 (221.8) ng/L and 469.8 (122.6) ng/L respectively, p>0,05]. When EO-PE and control group of early gestation pregnancies (<34 weeks) were compared, there was no significant difference [458.8 (221.8) ng/L and 506.2 (1481.9) ng/L respectively, p>0,05]. Furthermore, when LO-PE and control group of late gestation pregnancies (≥34 weeks) were compared, there was no significant difference between the groups [469.8 (122.6) ng/L and 506.2 (451.0 (85.1) ng/L respectively, p>0,05].

Conclusion: There were no significant difference between PE, EO-PE and LO-PE groups and their associated normotensive control groups. However, future research may focus on obtaining endocan levels during 11-14th gestational weeks of pregnancy considering an adequate sample size. The patients diagnosed with preeclampsia can be determined and a possible difference in serum endocan levels can be investigated. In case of a significant difference, endocan can be utilized as a marker for preeclampsia screening.

Keywords: Endocan, ESM-1, early onset preeclampsia, late onset preeclampsia

Table 1. Serum endocan levels of preeclampsia and control groups

	Control group	Preeclampsia group	Control vs	Preeclampsia
Serum endocan levels (ng/L)	Median (IQR)	Median (IQR)	Z	p
General	462.4 (321.1)	468.8 (169.7)	0.215	0.830
Early pregnancy (<34 weeks)	506.2 (1481.9)	458.8 (221.8)	0.576	0.565
Late pregnancy (≥34 weeks)	451.0 (85.1)	469.8 (122.6)	1.463	0.151

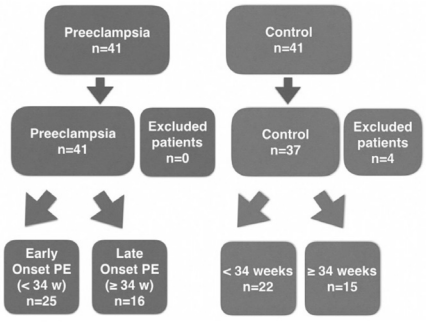


Figure 1. Study design

[OP-160]

Syndrome hyperechogenic bowel as a marker of necrotizing enterocolitis in severe forms of ıntrauterin growth retardation of the fetus

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Necrotic enterocolitis (NEC) is a common disease in newborns with an extremely low body weight, which leads to necrosis of the intestinal mucosa. The incidence ranges from 2.4 per 1.000 newborns. The risk of occurrence of NEC is increased in prematurely born children with 2-3 degree of intrauterine growth restriction of fetus. In the pathogenesis of the importance of the effects of fetal hypoxia, compensatory centralization of the circulation, which in turn leads to ischemia of the gastrointestinal tract, resistance of mesenteric vessels. Pregnancy 28 weeks. Verteks presentation. Severe pre-eclampsia. Fetus growth restriction syndrome 2 degree. Violation of feto-placental circulation. Syndrome of hyperechogenic intestine. At 29 weeks due to fetoplacental insufficiency in the stage of decompensation, the patient was delivered with operation of caesarean section in an emergency. A live premature baby was born, 700 grams. On the Apgar scale 7-7 points. The child was transferred to the intensive care unit for newborns, the respiratory distress syndrome was treated. In the first hours of life, given enteral nutrition, there was bloating. On the roentgenogram of the abdomen, the second stage of nonspecific enterocolitis was diagnosed. The corresponding antibacterial therapy and total enteral nutrition have been started. On the 81st day the child, with recovery, was discharged. Pregnancy 30 weeks. Breech presentation. Severe pre-eclampsia. Fetus growth restriction syndrome 2 degree. Fetoplacental insufficiency in the stage of decompensation. Syndrome of hyperechogenic intestine. Due to critical condition of the fetus, feto-placental insufficiency in the stage of decompensation, severe pre-eclampsia has been delivered by cesarean section in an emergency. A live premature baby 1030 grams was born. On the Apgar scale 7-7 points. The child was transferred to the intensive care unit for newborns, the respiratory distress syndrome was treated. In the first hours of life, given enteral nutrition, there was bloating. On the roentgenogram of the abdomen, the second stage of nonspecific enterocolitis was diagnosed. The corresponding antibacterial therapy and total enteral nutrition have been started. On the 59th day the child, with recovery, was discharged. Syndrome of the hyperechogenic intestine of the fetus could be visualized in the second trimester. Often there is a hyperechogenic intestine with cystic fibrinous malformation, chromosomal abnormalities, small intestinal obstruction, with Hirschsprung disease, with intestinal atresia, and intra-amniotic bleeding. The severe form of IUGR is combinedby 14-18% with hyperechogenic intestinal syndrome. In our study in 45% of patients, chromosomal abnormalities, IUGR, and other fetal anomalies were detected. In preterm infants, NEC manifests itself from the 2nd week of life. The severity of the NEC is proportionally dependent on the gestational age and the degree of violation of the FPC. Patients with severe form of IUGR, hyperechogenic intestine syndrome and critical feto-placental violations in the postnatal period, increase the risk of developing nonspecific enterocolitis in a newborn. From the first hours of life, newborns, in small doses, should receive nutrition to reduce the risk of NEC, prevent spontaneous intestinal perforation and to reduce mortality.

Keywords: Hyperechogenic bowel, necrotızıng enterocolıtıs, intrauterıne growth retardatıon



Figure 1. Roentgenogram of the abdomen



Figure 2. Hyperechogenic intestine in ultrasound examination

[OP-161]

Presentation of two cases with ıntrauterine primary fetal cardiac tumor and a short literature review

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Primary cardiac tumors are mesenchymal or hamartomatous nodules originating from the heart layers located in the heart or pericardium. The rate of its outbreaks in perinatal and neonatal period is 0.25% These tumors are rarely seen, and the diagnostic rates are increasing with the recent use of echocardiography frequently. Intrauterine diagnosis is quite difficult. Myxomas are the most common benign tumors in adults and constitute approximately 50% of the masses in the heart. However, very few cases have been reported during the neonatal period. Fetal tumors may show differences in perinatal echocardiography such as polyhydramnios, hydrops, cardiomegaly, arrhythmia and mitral-tricuspid insufficiency. Although benign, mortality rates are high such as 53-78% in the first trimester and in the first year of life. Our purpose of presenting the following 2 cases is still a difficulty in intrauterine diagnosis of these cases. A 24-year-old pregnant woman at 38th weeks of her pregnancy with a G2P0 was referred to our clinic for oligohydramnios. On echocardiographic examination, a view was observed which could be compatible with rhabdomyoma, in hyperechoic appearance and in the size of 30x18 mm in the right ventricle and 12x10 mm in the left ventricle. After birth, the diagnosis of rhabdomyoma was confirmed. 28-year-old pregnant patient at 27th weeks of her pregnancy with G2P0 was referred to our clinic for the detection of a mass in the heart. In echocardiographic examination, a 13x6 mm hyperechogenic mass moving together with pulmonary valve and hypertrophy in right ventricular was observed.The baby was operated in 20th day. The baby died on the 10th postoperative day. Cardiac rhabdomyomas tend to regress during the late period of the pregnancy and during the first few years of life. However, tumor growths that could be considered important until the third trimester were detected. Growing tumors can cause cardiac tamponade, heart dysfunction, hydrops fetalis and death. A different feature of cardiac rhabdomyomas from other primary cardiac tumors is tuberous sclerosis and its genetic background. Tuberous sclerosis was detected in approximately 76% of the cases in which rhabdomyomas was detected. Tuberous sclerosis was detected also in our first case. It is thought that as a result of the association of the two cases, the cardiac tumor may be a symptom of a genetic disease. The most important method of the diagnosis is echocardiography. Detections such as cardiomegaly, pericardial effusion, arrhythmia, and ventricular outflow obstructions suggest a tumor. A total of 32 fetal cardiac mycotic cases have been reported in the literature. Our case is the 33rd. It is usually seen in the left ventricle and the rarest site is the left atrium. In our case, the mass was located in the right ventricle. Localization and size of the mass may be predictive for prognosis. Echocardiography is the most reliable method for diagnosing myxoma as it is in diagnosing other cardiac tumors. We do not think it is appropriate to present termination as an option for pregnancies with primary fetal cardiac tumors because of the difficulty of intrauterine diagnosis.

Keywords: Cardiac myxoma, cardiac rhabdomyoma, tuberous sclerosis

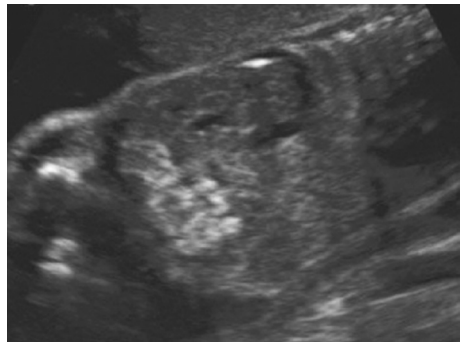


Figure 1. Intrauterine ultrasonographic imagine of rhabdomyoma



Figure 2. Intrauterine doppler ultrasonographic image of rhabdomyoma



Figure 3. Ultrasonographic imagine of cardiac myxoma. Hyperechogenic mass moving with pulmonary valve together

[OP-162]

The association of cord-blood ischemia modified albumin level with fetal doppler parameters in fetuses with intrauterine growth retardation

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Objective: The aim of this study is to investigate Cord blood ischemia-modified albumin in pregnancies with intrauterine growth retardation and to determine whether they are associated with abnormal fetal doppler findings or not.

Material and Methods: This study was conducted at Yüzüncü Yıl University School of Medicine Obstetrics and Gynecology Clinic between the date of 01/02/2016 and 01/09/2017. The study group included 34 pregnant women ranged from 18 to 45 years old who have intrauterine growth retardation and underwent ceseraen section. 32 pregnant women who had no abnormality on prenatal follow-up and underwent elective ceserean seciton served as control group. The maternal age, height, weight, body mass index (BMI), systolic and diastolic blood pressures were recorded in both groups of patients. Maternal serum total blood count and biochemical parameters were obtained from the laboratory parameters. Gestational week at birth, birth weight, sex, 1st and 5th minute APGAR scores were recorded. Blood samples were collected from all cases during the cesarean section for measurement of IMA by doubly clamped umbilical cord. Blood samples were immediately centrifuged in sterile tubes and maintained at -80 °C until assessed.

Results: The mean age of the study participants was 27.68±6.054/ year in the IUGR group and 30.09±7.018/ year in healthy controls in the control group. Study; The mean gestational week of IUGG group and control group was detected as 35.7±3.2 and 38.4±1.2, respectively. When the groups were compared in terms of demographic characteristics, it was similar in terms of maternal age, gravida, parity, gestational week, and BMI, but no significant difference was observed between the groups. Fetal weights in the IUGR group were significantly lower in the comparison of fetal weightsof the control group. IMA values (0.56565±0.229669 ng/ mL) measured in patients in the IUGG group were compared with IMA values (0.25069±0.123209 ng/mL) measured in the control group and it was found that IUGG group had statistically significantly higher IMA level than control group (Figure 1).

Conclusion: High cord blood IMA values may be a useful marker for perinatal asphyxia. Findings of abnormal doppler are associated with increased IMA levels in complicated pregnancies with IUGR.

Keywords: İschemia-modified albumin, intrauterine growth retardation, fetal doppler

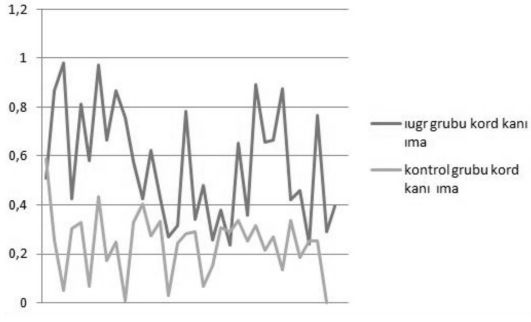


Figure 1. The comparison of Ischemia-modified albumin level in IUGR and control groups

[OP-163]

Hard palate teratoma: Epignatus

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Teratomas are made up of totipotential cells originated from all three germ layers, and are in different maturity layers. They are generally located in the mid-line; mostly in the sacrococcygeal area; and then in ovaries, testicles, mediastinum, retroperitoneal area, and head-neck region, respectively. The teratomas of head and neck region are rarely seen, and originate from superficial layers. The incidence of fetal oral teratoma epignatus is one in 35.000-200.000 live births. Although they mostly are benign, due to their locations, and dimensions, they may cause obstruction of respiratory pathway, and difficulty in swallowing. We will present a case of fetal oral teratoma which was diagnosed at the 21st gestational week; and which originates from hard palate. It was treated by extra-uterine intrapartum treatment (EXIT); procedure successfully. Thirty four-years old patient admitted to our perinatology clinic at her 21st gestational week. It was her fourth pregnancy. Ultrasonographic examination revealed the presence of fetus having biometric measures suitable with 21-week. Hyperechogenous mass originating from the oral cavity of the fetus, and protruding to the amniotic cavity was observed. It was 10x15 mm in dimensions, and had solid and cystic components. Vascularization was not observed in its Doppler examination (Figure 1a, b). Any other anomaly was not observed in its detailed sonographic examination. Magnetic resonance imaging (MRI) was also requested (Figure 2). There was not any problem in the antenatal follow-up of the fetus. The patient, who had two previous caesarian sections, had her delivery at the 39th week, with caesarian section also. A male fetus, weighing 2400 grams was born. The epignatus filling the whole oral cavity caused air-way obstruction during the labor. Before the clamping of the cord, the epignatus originating from the hard palate was clamped and excised, with EXIT; and the obstruction in the fetal airways was opened (Figure 3a, b, c). After the surgical operation was completed, the cord was clamped in 6 minutes. After clamping of the cord, only nasal oxygen was applied to the neonate. Pathologic examination revealed mature teratoma (Figure 4a, b). Diffusion MRI in the neonatal period demonstrated asymmetrical residual teratoma, which is 3x2.5 cm in dimensions, originating from oropharynx and having intracranial component, and protruding towards nasal cavity. The neonate was hospitalized for two weeks in the neonatal unit, and then discharged.

Keywords: Epignatus, extra-uterine ıntrapartum treatment, magnetic resonance



Figure 1a. The mass protruding from the fetal oral cavity (epignatus)



Figure 1b. The mass protruding from the fetal oral cavity (epignatus)

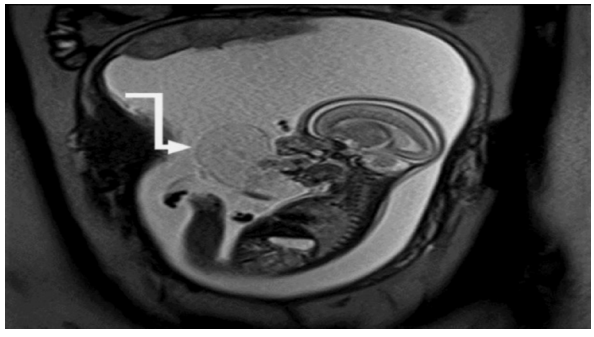


Figure 2. The teratoma protruding from the epignatus (MR imaging)

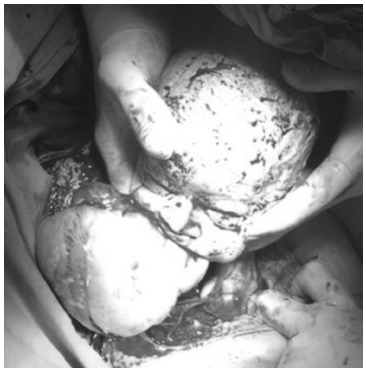


Figure 3a. Before the clamping of the cord, the epignatus originating from the hard palate was clamped and excised, with extra-uterine intrapartum treatment (EXIT); and the obstruction in the fetal airways was opened

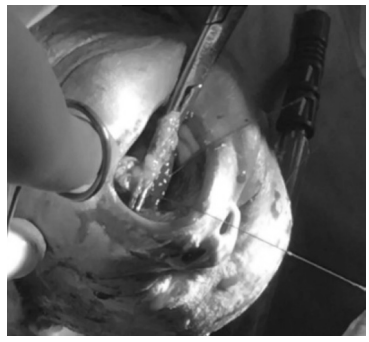


Figure 3b. Before the clamping of the cord, the epignatus originating from the hard palate was clamped and excised, with extra-uterine intrapartum treatment (EXIT); and the obstruction in the fetal airways was opened



Figure 3c. Before the clamping of the cord, the epignatus originating from the hard palate was clamped and excised, with extra-uterine intrapartum treatment (EXIT); and the obstruction in the fetal airways was opened

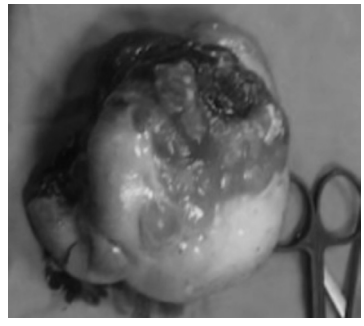


Figure 4a. Macroscopic view of epignatus

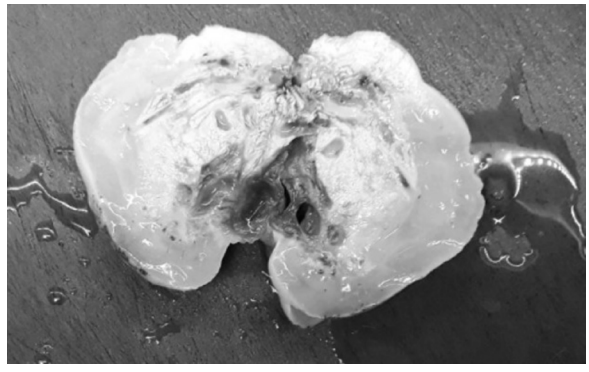


Figure 4b. Macroscopic view of epignatus

[OP-164]

Thrombophilia as a high risk factor of intrauterin Growth Restriction syndrome

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Objective: One of the main mechanisms of development of intrauterine grown restriction syndrome is feto-placental insufficiency and disbalance between pro-geniogenic and anti-angiogenic factors. This imbalance is exacerbated with augmentation of placental insufficiency and the degree of intrauterine grown restriction. In turn, thrombophilia, being a trigger for disturbance of placental processes, is a factor of high risk for development of IUGR. To detect frequency of genetic and acquired thrombophilia and in patient with intrauterine grown restriction syndrome.

Material and Methods: We examined 185 pregnant women in the third trimester of pregnancy with compensated and decompensated forms of placental insufficiency and IUGR for the presence of genetic and acquired forms of thrombophilia.

Results: In the vast majority of patients (74.6%) has been found presense of genetic form of thrombophilia. The circulation of antiphospholipid antibodies has been found in 41.1%. Attention is drawn to the high percentage of multigenic (55.1%) and combined (33.5%) forms of thrombophilia in the examined patients. More often has been found a homo- and heterozygous forms of MTHFR mutation, the heterozygous form of PAI-1 polymorphism and a heterozygous form of fibrinogen polymorphism.

Conclusion: The key role of thrombophilia in the pathogenesis of obstetric complications is following key: microthrombosis of the vessels of the placental bed occurs and, accordingly, a violation of uteroplacental blood flow. Implantation, invasion of trophoblast in the presence of genetic defects of coagulation is disrupted. It should be noted that in thrombophilia not only the early (avascular) implantation phase, but also the later stages of implantation (hemotrophic phase) and placentation suffer. Antiphospholipid antibodies are able to disrupt the process of trophoblast differentiation, which is manifested in changes in the embryo's adhesiveness, syncytium fusion disturbance, the depth of trophoblast invasion, a decrease in the production of chorionic gonadotropic hormone, and an increase in thrombotic tendencies. All of the above trends contribute significantly to the development of IUGF. Thus, pregnant women with genetic or acquired thrombophilia belong to a high-risk group for the onset of intrauterine grown restriction syndrome.

Keywords: Thrombophilia, antiphospholipid antibodies, intrauterine growth restriction syndrome

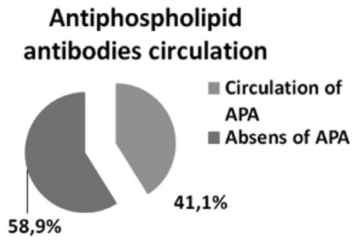


Figure 1. Antiphospholipid antibodies circulation

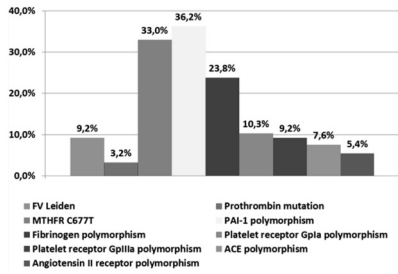


Figure 2. Genetic and acquired thrombophilia and in patient with intrauterine grown restriction syndrome

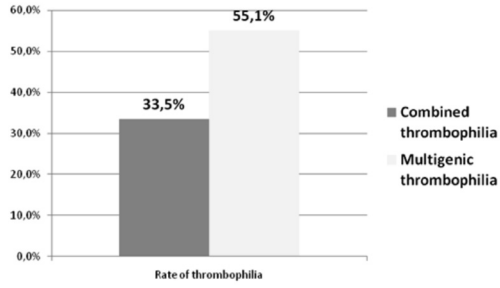


Figure 3. Rate of thrombophilia

[OP-165]

The role of inflammatory markers hs-CRP, sialic acid and IL-6 in the pathogenesis of preeclampsia and intrauterine growth restriction

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Objective: The aim of our study is to evaluate serum high-sensitivity C-Reactive Protein (hsCRP), sialic acid (SA) and interleukin-6 (IL-6) levels in pregnancies complicated with PE (PE) and intrauterine growth restriction (IUGR) and to compare with healthy pregnancies.

Material and Methods: This study was conducted at a tertiary level maternity hospital with 80 pregnant women. Fasting blood samples were taken from 44 consecutive women with pregnancies complicated by PE (n=20) and intrauterine growth restriction (n=24), and 36 were from normal pregnancies. Serum hs-CRP, SA and IL-6 concentrations were measured in all participants.

Results: Serum mean hs-CRP, SA and IL-6 levels were higher in the PE and IUGR group when compared with the control group, but this difference was statistically insignificant (p>0.05).

Conclusion: The serum levels of hs-CRP, SA and IL-6 were not elevated in pregnancies complicated with PE and IUGR compared with normal pregnancies. Since pregnancy is already a process with inflammation, fluctuations in some markers related to inflammation may be masked by the gestation itself. A local subclinical inflammation may have a role in the pathogenesis of PE and IUGR rather than systemic inflammation.

Keywords: PE, fetal growth restriction, inflammation, pregnancy

Table 1. Demographic features of the subjects

	Preeclampsia (n=20)	Control (n=36)	IUGR (n=24)	p value
Age (years)	30±5.3	24.5±5.9	23.5±5.6	0.001
Gravity	2±1.1	2±0.9	1±1.2	0.519
Parity	1±0.8	1+0.8	0±0.8	0.147
BMI (kg/m^2)	30.2±5.6	29.4±1.8	29.3±2.0	0.031
Gestational age (weeks)	34±7.3	36±3.0	37±1.1	0.058

Table 2. Comparison of some inflammatory markers between the groups

	Preeclampsia n=20)	Control (n=36)	IUGR (n=24)	p value
Hs-CRP (mg/L)	5.1±6.2	4.7±5.0	4.6±7.9	0.990
IL-6 (pg/mL)	3.7±2	4.2±16.3	2.3±8.9	0.132
Sialic (mg/dL) Asid	23.1±2.4	19.5±13.1	18.1±68.9	0.116
White blood cell count (/mm^3)	10300±2361	11950±4345	9500±1856	0.194

[OP-166]

Comparison of amniotic band and intrauterine synechiae or adhesion diagnosis in second trimester pregnancy: Case report

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Amniotic band sequence (ABS) terms highly variable spectrum of congenital anomalies that occur in association with amniotic bands. The estimated incidence of ABS ranges from 1:1200 to 1:15,000 in live births. Intrauterine adhesions, or intrauterine synechiae, is a condition in which scar tissue develops within the uterine cavity. The true prevalence of intrauterine adhesions is difficult to establish, because the condition is rare in the general population and often asymptomatic. Intrauterine adhesions accompanied by symptoms (eg, infertility, amenorrhea) are also referred to as Asherman syndrome. Two patients who were referred to our clinic for anatomic screening were evaluated. First pregnant woman aged 25 years presented during her 22rd week of gestation for a routine fetal anatomic scan. Her medical history was not significant for any clinical condition. The fetus had a normal anatomic scan but fetus had amniotic band sequence. This amniotic band was thin and there was fluctuations in amniotic fluid. These findings ara clearly visible in the first image (Figure 1). Second pregnant woman aged 30 years presented during her 21rd week of gestation for a routine fetal anatomic scan. Her medical history had one curettage for pregnancy complication. The fetus had a normal anatomic scan but she had intrauterine synechiae. The floor of the intrauterine synechiae was widely and lateral of the uterine cavity. These findings ara clearly visible in the second image (Figure 1). The diagnosis of ABS is based upon the presence of characteristic structural findings on prenatal ultrasound or postnatal physical examination of the affected individual. The amniotic band is thin and there is fluctuations in amniotic fluid. Clinical manifestations include limb and digital amputation, constriction rings, craniofacial abnormalities, body wall defects, syndactyly, clubfoot, hand deformities, spinal defects, and lung hypoplasia. The diagnosis of intrauterine adhesions is based upon visualization of intrauterine adhesions either directly by hysteroscopy or indirectly by other imaging studies. The main components of the diagnostic evaluation for intrauterine adhesions are the medical history and hysteroscopy. Pelvic imaging findings may be the initial test that suggests that adhesions are present. In addition, a history of uterine procedures, particularly curettage related to pregnancy, and pelvic infections should be elicited. Clinical manifestations of severe intrauterine adhesive disease include infertility, recurrent pregnancy loss, menstrual irregularities and cyclic pelvic pain. The amniotic membranes may be encountered in the uterus with a thin interface that surrounds a uterine synechiae all around. This uterine malformation is called the amniotic leaf and there is no increase in the probability of fetal anomaly because it is out of the amniotic cavity. The floor of the amniotic leaves (Intrauterine adhesions) is widely and lateral of the uterine cavity and comes from four layers (two amniotic and two chorionic) while the amniotic band is a thin layer and forms fluctuations in the amniotic fluid.

Keywords: Amniotic band sequence, Intrauterine adhesions, Intrauterine synechiae

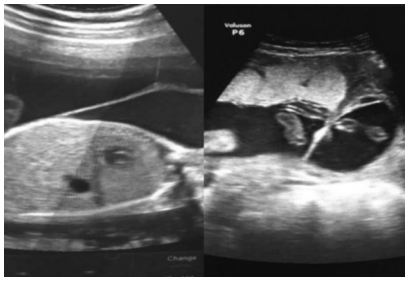


Figure 1. The first image is amniotic band and second image is intrauterine synechiae

[OP-167]

Patients who have three or more ceserean operation: Dicle university's three year experience

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Objective: The aim of the present study is to evaluate the patients whose cesarean number three or more, performed cesarean operation again.

Material and Methods: Patients who have 3 or more caesarean operation, admitted for caesarean operation again to our hospital between January 2013 and November 2015 were analysed retrospectively. Patients who had under 24 weeks of gestation pregnancy were not included the study. Patients informations were scanned retrospectively by using birth registry and the hospital's own data management system HBYS. Patients' ages, gravidities, parities, number of previous cesarean operations, gestational weeks, known systemic diseases, infant's weight and complications were documented.

Results: A total of 819 patients have been operated with these indications Between January 01, 2013 and November 31, 2015 included the study. The mean age of the patients was 31,77 (SD 4,836). The mean gravitities were 5,36 (SD 1,542) and parities were 3,81 (SD 0,505). It has been documented that 594 patients have three times 209 patients have four times 14 patients have five times and 6 patients have six times had previously undergone cesarean operation. 39 patients with placental invasion were identified. 12 Patients who have placental invasion anomalies required additional surgical intervention. 333 patients underwent tubal ligation. 13 patients had several complications during and after the operation. The most common complication was bladder injuries. According to this study 7 patients with bladder injuries, 1 patients with bowel injuries, 1 patients with intraabdominal hemorrhages and 1 patients with post operatively pulmoner embolism were identified. 30 patients needed red blood transfusion and a large proportion of these patients had placental invasion anomalies. 7 patient had morbid obesity (BMI≥40). 9 patients also had twin pregnancies.33 incompleted uterine rupture and 5 completed uterine rupture had been determined during the operations.

Conclusion: Cesarean birth ratio have been increased in the World as well as our country every year in this era. The number of repeated cesarean number has been increased too. During the experiences have been increased, complications have started to be lower. It is very important point in our country because of the fertility wis. many patients has started to not choose tubal ligation for contraception. ıncreased number of repeated ceserean may causes of increased placental invasion anomalies.

Keywords: Previous cesarean, tubal ligation, placental invasion

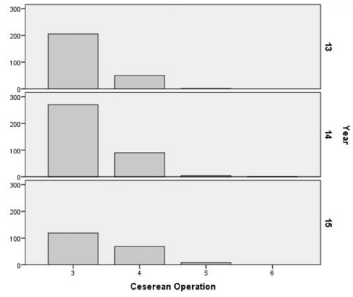


Figure 1. Caesarean operation

[OP-168]

Caesarean scar pregnancy: The experience in our clinic

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Objective: To present the demographic and clinical characteristics and the treatment method of cases of caesarean scar pregnancy (CSP).

Material and Methods: A retrospective examination was made of cases diagnosed with CSP at the tertiary reference hospital of Sütçü Imam University between January 2015 and December 2017. Data were retrieved related to the demographic characteristics of the patients, ultrasonography (USG) findings and treatment procedures.

Results: A total of 23 CSP cases were identified in the specified study period (Figure 1). Two patients who rejected the methotraxate (MTX) treatment protocol of our clinic and underwent hysteretomy were excluded from the study. There were complaints of vaginal bleeding in 8 (38.1%) cases and abdominal pain in 5 (23.8%) cases. The remaining 10 cases were asymptomatic and diagnosed during routine ultrasonographic examination. In 16 (76.2%) cases no embryo was observed in the gestational sac on USG examination and in 5 (23.8%) cases, there was embryonic heart activity. The mean age of the patients was 31.2±6.9 years, mean gravida was 4.4±1.7, mean gestational age was 7.0±1.1 weeks and the number of previous caesarean section (CS) deliveries was 2.0±0.9 (Table 1). Intramuscular methotrexate at a dose of 1mg/kg was applied to all the patients, then after 1 week, a dilatation and curettage (D&C) procedure. Before the MTX treatment, the initial serum beta-hCG value was determined as 15813.1±12740.5 IU/mL. The haemoglobin (Hb) level was determined as 12.3±1.4 before MTX treatment and 11.4±0.6g/dL after the D&C procedure (Table 2).

Hysterectomy was not applied to any patient. CSP was determined at the rate of 8.0% of all ectopic pregnancies. Success rates for MTX in CSP treatment have been reported between 57% and 100%. Although there is no consensus on systemic or local use, the optimal dose, the number of applications, or what should be the need for repeated dose application and at what intervals, in systemic use a dose of 50 mg/m^2 has been reported to be effective in patients with serum beta-hCG <5000 IU/mL (1-3). In the current study, all the patients were administered a systemic single dose of 1 mg/kg MTX and no side-effects were determined. Neither were any complications determined related to the D&C procedure applied 1 week after the MTX treatment. However, limitations of this study are the low number of patients and that there was no control group to which MTX alone was applied or D&C alone.

Conclusion: CSP, which has shown an increase in recent years in parallel with CS rates, may cause bleeding and serious complications even as far as maternal mortality. CSP cases in our clinic were successfully treated with a combination of systemic MTX followed by D&C.

Keywords: Caesarean scar pregnancy, ectopic pregnancy, methotrexate

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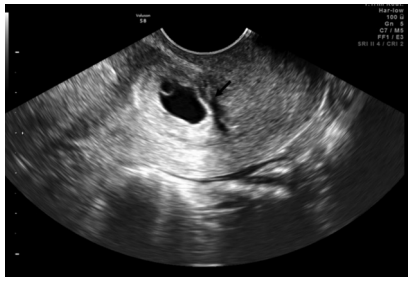


Figure 1. Pregnancy located on the caesarean scar line

Table 1. Demographic and clinical characteristics

	Study group (n=21)
Gravida	4.4 ± 1.7
Parity	2.3 ± 1.0
Age (years)	31.2 ± 6.9
Gestational week	7.0 ± 1.1
Presence of embryonic heart activity on USG (n)	5 (23.8%)
Number of previous caesarean section deliveries	2.0 ± 0.9
Vaginal bleeding (n)	8 (38.1%)
Abdominal pain (n)	5 (23.8%)

n: Number of patients (%)
USG: Ultrasonography

Table 2. Study results

Pre-treatment serum beta hCG value(IU/mL)	15813.1 ± 12740.5
Pre-treatment Hb value (g/dL)	12.3 ± 1.4
Hb value (g/dL) after D&C	11.4 ± 0.6

D&C: Dilatation and curettage

[OP-169]

Fetal pancreatic hyperechogenity may be an early ultrasonographic sign of large for gestational age fetus

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Objective: To determine whether presence of fetal pancreatic hyperechogenity is closely related with large for gestational age fetus (LGA).

Material and Methods: A total of 95 pregnant women with uncomplicated singleton pregnancies were recruited between January 2016 and December 2016 at a tertiary hospital in this prospective cross-sectional study. The final study group was composed of 76 subjects because of 4 cases refused to participate in the study and 15 cases did not meet the inclusion criteria. Fetal ultrasonography was performed between 24 and 28 weeks of gestation for conventional fetal biometry. Based on their pancreatic sonogram results, subjects were divided into three groups i.e. isoechogenic, moderate echogenic, hyperechogenic pancreas group. Birth characteristics (mode of delivery) and fetal outcomes were recorded. The relationship between pancreatic hyperechogenity and development of fetal macrosomia was assessed. A routine standard sonographic examination for fetal biometry was first performed. Fetal stomach, left kidney, hepatic artery and splenic artery were used as landmarks to accurate focus and identify the fetal pancreas. For optimum fetal pancreatic measurements, the ultrasound transducer was oriented to screen the slightly oblique transverse view of the fetal upper abdomen. The fetal pancreas was located behind the fetal stomach and pyloric antrum and was almost similar the liver. Fetal pancreas is classified based on pancreatic echogenity i.e. isoechogenic, moderate echogenic, and hyperechogenic (severe echogenic). The ultrasonographer graded the pancreas prenatally by morphological criteria as a grade 1, 2 and 3. A grade 1 (isoechogenic) pancreas shown by ultrasonic view is characterized by isoechoic homogeneous appearance, the same as the fetal liver. A grade 2, contains minimal ecojenities and seen as between grade 1 and 3. A Grade 3 pancreas shows hyperechogenic almost similar to bone density (ribs). Logistic regression analysis was conducted to compare the relationship between the development of LGA fetuses and fetal pancreatic echogenitiy.

Results: Fourty cases with hyperechogenic pancreas,14 cases with moderate echogenic and 22 cases with isoechogenic pancreas were included to the study. There were no significant differences in maternal demographic and obstetric features exception of birthweight among the groups. Fetal birthweight were significantly higher in the hyperechogenic pancreas group than other two groups (p<0.0001). Hyperechogenic pancreas was strongly positive correlated with development of large LGA fetus (r=0.74, p<0.0001). Hyperechogenic pancreas had an 819 times increased risk than isoechogenic group for development of LGA fetüs (p=0.000). Hyperechogenic pancreas had an 142 times increased risk compared to those with moderate echogenic for development of LGA fetüs (p=0.000). A receiver operating characteristic (ROC) analysis was used to identify which fetal pancreatic grades could predict LGA. Sensitivity, specificity, positive were calculated to evaluate the efficacy of the view of hyperechogenic pancreas in the prediction of LGA (Area Under Curve AUC+SE=0.936±0.029 95% (CI 0.879 to 0.992; p<0.0001). The cut off value of 3840 gr (birthweight) provided optimal spesifity of 85.3% and a sensitivity of 95%.

Conclusion: An accurate prediction model assessing pancreatic hyperechogenity for detection of large for gestational age (LGA) fetus among pregnant women may be created. Fetal hyperechogenic pancreas may be used as a complementary biomarker for the detection of pregnant women suspected with LGA fetus.

Keywords: Fetal pancreas hyperechogenity, fetal ultrasonography, fetal development, large for gestational age fetüs



Figure 1. Fetal hyperechogenic pancreas. A Grade 3 pancreas shows hyperechogenic almost similar to bone density (ribs)

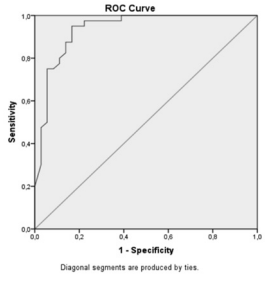


Figure 2. Receivers operating characteristic (ROC) curves with regard to predicting LGA were drawn for fetal pancreatic grades

Table 1. Demographic and clinical characteristics of the groups

Variables	Isoechogenic pancreas Group 1 n=22	Moderate echogenic pancreas Group 2 n=14	Hyperechogenic pancreas Group 3 n=40	p value
Age (year)	25.27±5.21	26.57±5.78	26.1±6.16	0.87
Parity	2.32±1.24	1.71±0.82	2.01±1.21	0.36
Gestational age	25.36±1.39	24.86±0.86	25.78±1.31	0.065
BMI (kg/m^2)	28.34±3.47	27.58±5.79	26.6±4.37	0.31
Birthweight	3323±419	3433±536	4105±196	<0.0001
Birthlength	49.7±1.9	49.8±2.2	50.4±1.3	0.19
Gender of the babies (male/female)	13/9 (59/41%)	5/9 (35.7/64.2%)	24/16 (60/40%)	0.26

Table 2. Logistic Regression analysis of relationsheep between pancreatic echo and LGA fetuses

Variables	B	SE	P	Exp B
Grade 1 vs Grade 3	6.70	1.44	0.000	819
Grade 2 vs Grade 3	4.96	1.20	0.000	142
Grade 1 vs Grade 2	1.74	1.21	0.150	5.72

[OP-170]

Cervical contraction suture in lower uterine segment haemorrhage during caesarean section in placenta previa

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Objective: To study the control of profuse bleeding during caesarean section with cervical contraction sutures. Cervical contraction sutures were applied in eight cases with placenta previa at Ege University.

Material and Methods: Retrospective data of 8 patients including; age, parity, gestational age, preoperative bleeding status, necessity of blood transfusion, change of hemoglobin values, performed additional procedures and complications were collected. In surgical technique, bladder flap of peritonium was sepereted and bladder cleared away from lower uterin segment area. After delivering the baby placenta removed manually. An excessive bleeding developed immediately from the lower uterine segment. Regardless of the standard PP and

PA protocol, we tried stop bleeding with meticulous sutures at the begininig. But, it was ineffective. We inserted a Polyglactin 910 number one (No: 1) stitch into the bleeding lower uterin segment from medial to right uterin artery, to medial to left uterin artery. And then, with the same stitch we past through the anterior to the posterior side of the broad ligament. In the next step we inserted the stitch from left side to rigt side of the posterior uterin wall, just above the uterosacral ligament. Finally, we past the stitch through the posterior to the anterior side of broad ligament and tightened as much as possible. We observed that, the bleeding was decreased approximately by 90%. This intervention took one to two minutes. Subsequently, we filled the esophagus part of Sengstaken-Blakemore tube with 250 cc saline. After this additional intervention there was no visible bleeding. Then, the uterine incision was stitched in one layer. At the 24th hour of the operation, half of the saline in the tube was drained, to ensure there is no bleeding anymore. This is followed by emptying the rest amount of the saline 2 hours later and removing the tube vaginally. Standard antibiotic prophylaxis was adminestered, as a first generation cephalosporin at the time of the surgery and oral ampisilin for the following week. The patient was discharged in third postoperative day without additional problems. All women follow up was done on 6th week, 6th month and at end of the 1st year.

Results: Cervical contraction sutures were effective in all cases and any of the patients were needed postpartum hysterectomy. After one year follow up all had regular menses with no co-morbidities.

Conclusion: Cervical contraction sutures is a quick, safe, simple and effective technique for controlling low segment haemeorrhage with placenta previa patients during section caesarean

Keywords: Cervical contraction suture, lower segment haemorrhage, placenta accreta, placenta praevia, postpartum haemorrhage

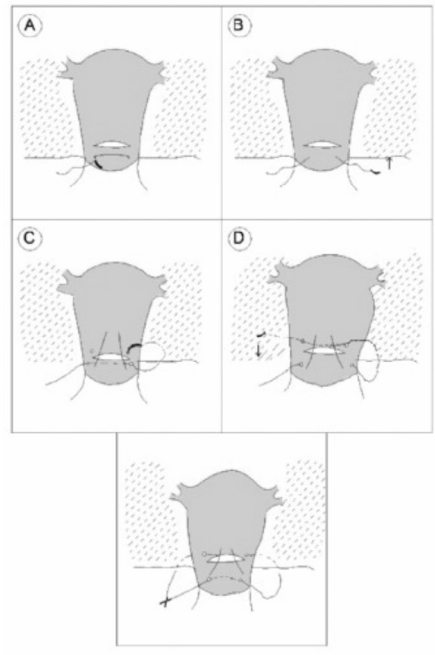


Figure 1. Implementation of cervical contraction suture

Table 1. Obstetric and perinatal features of the patients

Case no	Age	Parity	GA (weeks)	Preopertive bleeding	Transfusion units	Change in hemoglobin values	Adjunctive procedure	Complication
1	34	G4P2	37+ 1/7	Yes	10 U PRBC 4 U FFP	3.1	Ligation of ovarii proprium	Bladder injury
2	29	G4P3	31+ 5/7	Yes	4U PRBC	4.1	-	-
3	26	G2P1	38+ 6/7	No	-	3.6	-	-
4	34	G2P1	37	No	-	4.2	-	-
5	31	G2P1	26+ 4/7	Yes	6U PRBC 4U FFP	5.2	-	DIC
6	33	G6P1	31+ 3/7	Yes	3U PRBC	3.1	-	-
7	37	G5P1	33	Yes	12U PRBC 6U FFP	5.2	Ligation of hypogastric arteries	DIC
8	34	G6P5	37+ 5/7	No	4U PRBC	1.8	Ligation of ovarii proprium	-

[OP-171]

Assessment of hepatic artery doppler in gestational diabetes mellitus

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Objective: To determine possible differences in hepatic artery flow between healthy pregnancies and pregnancies complicated by gestational diabetes mellitus. This is the first study assessing HA doppler indices in patients with GDM during second trimester.

Material and Methods: This prospective study was performed between December 2016 - March 2017 at a tertiary referral hospital. Fifty nine singleton pregnancies with gestational diabetes mellitus (GDM) at 24-28 weeks were included to study group (Group 1). A control group (Group 2) that comprised 50 women with similar gestational age, body mass index (BMI) and normal OGTT was genereted. Patients with known liver, gastrointestinal or cardiac disease, fetal anomaly and taking vasoactive drugs or steroids were excluded. Measurements of hepatic artery (HA) Pulsatility index (PI), resistance index (RI), peak systolic velocity (PSV) were compared between the study group and controls (healthy pregnancies). The doppler indices of HA was calculated automatically by the computer system embedded in the ultrasonography device by a single examiner with consistent patients (Figure 1). GDM was diagnosed with oral glucose tolerance test (OGTT).

Results: Maternal sociodemographic characteristics and fetal outcomes were summarized in Table 1. Fetal birth weight of diabetic mothers was significantly higher than controls (p=0.02). Among these 59 fetus 13 (22%) were overweight (>4000 gr) (p=0.018). HA PI measurements were significantly higher (p=0.012), whereas HA RI and PSV measurements were similar (p>0.05) in women with GDM (Table 2).

Conclusion: The addition of HA PI measurement to the second trimester combined screening may play a role in identifying fetal growth acceleration in GDM.

Keywords: Fetal hepatic artery doppler, gestational diabetes mellitus, macrosomic fetüs

Table 1. Characteristics of patients and fetal outcome

	GDM positive group n=59	Control group n=50	p value
Age (year)	29.1±7.1	27.2±6.1	0.16
Gravida	2.2±1.0	2.2±0.88	0.89
Parity	0.93±0.8	0.86±0.6	0.81
Gestational age at sonographic scan	25.6±1.3	25.4±1.3	0.39
BMI (kg/m^2)	28.2±3.93	27.1±4.41	0.18
Birth at week	38.8±1.1	38.4±1.5	0.082
Birth weight (gr)	3512±471	3203±519	0.002
Overweight fetus >4000 gr	13 (22%)	3 (6%)	0.018
Gender of the babies (male/female)	35/24	23/27	0.16
Mode of delivery vaginal/ceserean	28/31	34/16	0.031

GDM: Gestational diabetes mellitus, BMI: Body mass index

Table 2. Hepatic artery Doppler parameters of groups

Variables (mean ± SD)	GDM positive group n=59	Control group n=50	p value
Hepatic artery PI	2.15±0.96	1.71±0.54	0.012
Hepatic artery RI	0.82±0.27	0.77±0.21	0.27
Hepatic artery PSV (cm/s)	15.8±6.9	14.9±6.2	0.63

GDM: Gestational diabetes mellitus, PI: Pulsatility index, RI: Resistive index, PSV: Ppeak systolic velocity



Figure 1. Hepatic artery doppler wave

[OP-172]

Invasive interventions in obstetric intensive care

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Objective: It was aimed to analyse the interventions applied, clinical outcomes and prognosis of obstetrical patients admitted to the intensive care unit (ICU).

Material and Methods: The records of patients admitted to ICU of a tertiary level university hospital during pregnancy and postpartum period were retrospectively investigated. Data including patient age, gestational age, gravida-parity, accompanying diseases, transfer status, reasons for admission to ICU, APACHE II and SOFA scores were recorded. Blood product, vasoactive agent, magnesium and fibrinogen requirements and administrations were recorded. Invasive interventions were determined as mechanical ventilator and hemodiafiltration requirements.

Results: Of the total of 124 obstetric patients admitted to ICU, 96 (77.4%) were referred from external centers, with 119 (96%) admitted to ICU after surgery. In patients with peripartum-hemorrhage, 30 patients underwent hysterectomy, Lynch suture and Bakri balloon were applied for 2 and 3 patients respectively. Seventeen patients had hypogastric artery ligations and 1 patient had uterine artery ligation performed. In 17 of our patients (13.7%) after the first procedure re-laparotomy was performed to identify and treat hemorrhage foci. In 83.3% of hysterectomised patients, hysterectomy was applied after cesarean section while 5 (16.7%) had it after vaginal birth or curettage. In 7 patients (5.6%) procedures were performed for non-obstetric reasons (Table 1, 2). In terms of blood products administered in ICU, 57 patients received mean 3.2 units

erythrocyte suspension, 48 patients had mean 3.7 units fresh frozen plasma, 13 patients had mean 5.9 units random platelet suspension, and 20 patients had mean 3.4 units apheresis platelet suspension. The mean duration of ICU stay was 3.9 days. When admitted to ICU, the mean initial APACHE II value was 14.8 and mean SOFA value was 4.4 for patients (Table 3). 50% of the patients required mechanical ventilator support in ICU. Sixty patients (48.4%) were intubated before admittance to ICU. The mean duration of mechanical ventilator use was 46 hours. For 37.9% of patients central venous catheter was inserted for central venous pressure monitoring or inotrope support requirements. For 120 patients (96.8%) arterial cannula was inserted for invasive monitoring of arterial tension or frequent blood gas monitoring. In 14.5% of patients inotrope support was needed. For 40 patients, magnesium infusion was administered for seizure control due to severe preeclampsia and eclampsia. Of patients with excessive bleeding and blood transfusion performed, 40 had fibrinogen replacement after identification of hypofibrinogenemia. In 7 patients (5.6%) a temporary dialysis catheter was inserted after development of renal failure with mean 5.3 days of hemodiafiltration applied. In 5 of them, there was multiple organ failure linked to sepsis or HELLP, 1 had renal failure linked to preeclampsia, and 1 had renal failure linked to sepsis. For 2 of these patients, the outcome was mortality, while 5 (5/7, 71.4%) recovered.

Conclusion: Commonly used invasive treatment methods in ICU were mechanical ventilation and hemodiafiltration. Considering that patients receiving hemodiafiltration benefitted from it, it could be suggested that ICU's accepting obstetric patients should be able to administer renal replacement treatments.: Good obstetric care was observed to dramatically reduce mortality rates even in cases with severe complications.

Keywords: Clinical outcomes, intensive care unit, obstetric patient, hemodiafiltration

Table 1. Patient characteristics

	n	%
Age		
<20	9	7.3
20-34	81	65.3
35-39	28	22.5
>39	6	4.8
Cesarean section in history	45	36.3
Additional disease		
Cardiac	5	4
Hypertension	3	2.4
Asthma	1	0.8
Venous failure	2	1.6
Epilepsy	1	0.8
Rheumatoid Arthritis	1	0.8
Kidney Disease	2	1.6
ITP*	1	0.8
Operated saliva gland tumor	1	0.8
Operated myomectomy	2	1.6
Facial paralysis	1	0.8

Table 2. Distribution of intensive care levels for reasons for admission

	Level					
	Level 1		Level 2		Level 3	
	n	%	n	%	n	%
HELLP	1	4.8%	13	61.9%	7	33.3%
Hemorrhage	2	3.4%	22	37.3%	35	59.3%
Hypertension	3	11.5%	7	26.9%	16	61.5%
Problem apart from pregnancy	4	40.0%	3	30.0%	3	30.0%
Sepsis	0	.0%	5	62.5%	3	37.5%
TOTAL	10	8.1%	50	40.3%	64	51.6%

Table 3. Intensive care stay duration and mean scoring

	n	APACHE-II admission	APACHE-II discharge	SOFA admission	SOFA discharge
≤ 2 days	48	12.5	6.1	3.41	1.25
3-7 days	65	14.7	7.4	4.6	1.5
7-15 days	9	18	12.9	7.7	5.1
>15 days	2	25.5	8	7	1.5

[OP-173]

The role of omentin in early pregnancy losses

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Objective: Pregnancy losses have been linked to an aberrant activation in maternal immune system and, thus, an increased expression of proinflammatory cytokines. This study aims to investigate the role of an anti-inflammatory adipokine named as omentin in pregnancy losses.

Material and Methods: This is a prospective review of 47 women who were consecutively referred to the study center due to spontaneous abortion and 36 women who consecutively underwent elective termination of pregnancy by dilatation and curettage.

Results: The women who had spontaneous abortion and the women with healthy pregnancies were statistically similar with respect to age, gestational age, smoking, consanguinity, gestational diseases, body height, BMI, gravidity, parity, previous abortions and curettages ($p>0.05$ for all). The women in the spontaneous abortion group and the women with healthy pregnancies had statistically similar plasma concentrations

of omentin (7.798±3.453 ng/mL vs 7.200±3.442 ng/mL, p=0.435). Plasma omentin concentrations of the participants correlated negatively and significantly with their body weight (r=-0.242, p=0.027).

Conclusion: Spontaneous abortion is defined as the loss of a pregnancy without outside intervention before 20 weeks of gestation. Although spontaneous abortions can be attributed to chromosomal, endocrinological, or anatomical abnormalities, the precise cause of fetal loss is unknown in most cases. Since the maintenance of a pregnancy requires intricate interactions between the maternal immune system and semiallogeneic conceptus, it has been hypothesized that an aberrant activation in maternal immune system participates in the pathophysiology of spontaneous abortions (1). Omentin is an anti-inflammatory peptide which inhibits TNF-α and IL-6 mediated induction of proinflammatory cytokines within vascular endothelium (2,3). Therefore, it would be prudent to expect decreased omentin concentrations in spontaneous abortions. To the best of our knowledge, this is the first study which assesses the role of omentin in the pathophysiology early pregnancy losses but it has failed to detect a significant difference between the plasma omentin concentrations of women who had spontaneous abortion and women who underwent elective termination of pregnancy. There were a number of factors that limit the power of this study including the relatively small cohort size, lack of data related with fetal karyotype. Further research is warranted to clarify the exact mechanisms among the inflammatory cytokines and anti-inflammatory molecules as well as their mutual regulation relationships in early pregnancy losses.

Keywords: Abortion, dilatation and curettage, inflammation, omentin, pregnancy

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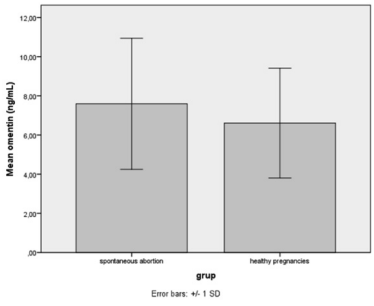


Figure 1. Plasma omentin concentrations of women with spontaneous abortion and healthy pregancies

Table 1. Demographic and clinical characteristics of the study population

	Spontaneous abortion (n=47)	Healthy pregnancies (n=36)	p
Age (years)	29.4±6.0	28.1±5.9	0.334
Body weight (kg)	68.8±13.3	68.0±10.7	0.790
Height (m)	1.61±0.06	1.60±0.05	0.281
Body mass index (kg/m^2)	25.8±3.5	27.5±5.5	0.089
Gravidity	3.4±2.2	2.9±1.7	0.243
Parity	1.5±1.2	1.3±1.2	0.527
Previous abortions	1.4±1.0	0.8±0.6	0.080
Previous curettages	1.3±0.9	0.9±0.5	0.203
Gestational age (weeks)	11.6±3.5	12.8±3.2	0.141
Smoking	5 (10.6%)	4 (11.1%)	0.945
Consanguinity	9 (19.1%)	6 (16.7%)	0.771
Gestational diseases	11 (23.4%)	2 (5.6%)	0.328
Diabetes mellitus	4 (8.5%)	0 (0.0%)	
Hypothyroidism	3 (6.5%)	2 (5.6%)	
Hypertension	2 (4.2%)	0 (0.0%)	
Hyperthyroidism	2 (4.2%)	0 (0.0%)	

[OP-174]

Maternal serum granulocyte colony-stimulating factor in pregnancies complicated with preterm prelabour rupture of membranes

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Objective: We conducted this study to assess the association between maternal serum Granulocyte colony-stimulating factor (G-CSF) in pregnancies complicated with preterm prelabour rupture of membranes (PPROM).

Material and Methods: A total of 88 pregnant women (PPROM group, n=44 and control group, n=44) were included to this prospective case control study. Serum blood samples for G-CSF were obtained from both group within 6 h and kept frozen at -80 °C until analysis. Risk factors recorded were; age, gravidy, parity, delivery type, fetal birth weight, APGAR scores, white blood cell count microCRP, neutrophil/lymphocyte ratio (NLR), and maternal serum Granulocyte colony-stimulating factor (G-CSF).

Results: Demographic characteristics showed no statistically significant difference among the groups (p>0.05). Delivery type was cesarean section in a ratio of 38% in study group and 16.5% in control group and this difference was statistically significant between the groups (p<0.05). Fetal parameters were also showed statistically significant difference (p<0.05). There was statistically significant difference between groups in terms of G-CSF. G-CSF levels were higher in PPROM group (p<0.05)

Conclusion: We think that second trimester maternal serum G-CSF level is a good predictor to predict PPROM.

Keywords: Preterm prelabour rupture of membranes, maternal, Granulocyte colony-stimulating factor

[OP-175]

Comparison of genetic sonogram findings and aneuploidy rates in pregnancies with advanced maternal age risk

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Objective: Use of ultrasonography to screen aneuploidies began with the measurement of the nuchal fold thickness about 30 years ago. Many other soft markers that can be detected in second trimester ultrasonography for the detection of aneuploidies are also described. Such markers are not structural anomalies and usually have no clinical significance to the fetus except for their association with aneuploidy. Thus, prenatal screening and genetic sonogram is important, especially among women of advanced maternal age. In our study, we aimed to evaluate the results of genetic sonogram and amniocentesis of patients, who were evaluated due to maternal advanced age risk in the prenatal diagnosis unit of Erciyes University within the last year.

Material and Methods: From January 2017 to January 2018, 453 patients who were evaluated in the prenatal diagnosis unit for advanced maternal age risk were included in the study. The major anomalies and minor markers detected in genetic sonogram were recorded. The presence of following markers were evaluated: increased nuchal fold thickness (≥6 mm), mild ventriculomegaly, choroid plexus cysts, cardiac hyperechogenic focus, renal pyelectasis, intestinal hiperechogenicity, single umbilical artery, short femur or humerus length, ventricular septal defect, absent or hypoplastic nasal bone. All fetuses were evaluated postnatally for the presence of anoploidia. The obtained data were evaluated in the SPSS program.

Results: Twenty of 453 patients underwent amniocentesis and 2 patients underwent corion villus sampling (CVS). Normal karyotype was found in all patients who underwent invasive prenatal testing. Genetic sonogram was performed in the remaining 424 patients. Patients were divided into subgroups in terms of major anomaly and minor marker presence. 6 patients (1.3% of total patients) with any major anomalies were detected. Postpartum evaluation of these fetuses, one had trisomy 21 (16.6%) and one had trisomy 18 (16.6%). Only one minor marker was detected in 55 patients (12% of total patients). One fetus was born with Trizomi 21 (1.8%). Two or more minor markers were detected in 6 patients (1.3% of total patients). There was no aneuploidy in these 6 fetuses after postpartum evaluation. İn 386 patients (85.2% of total patients) were not detected any anomalies. Total of 4 trisomy 21 fetuses were born (1.03%).

Conclusion: Previous studies report that; in the presence of one minor marker, the risk of Down syndrome increased two-fold from the initial risk. İn the presence of two or more markers, the risk increased 10-23 fold. İn our study; in the presence of one minor marker, the risk increased 1.7 fold. But; in our study, any aneuploidies were not detected in fetuses in the presence of two or more markers. This may due to the small number of patients. There is a need for more extensive research involving more patients in this regard.

Keywords: Aneuploidy, minor markers, amniocentesis, genetic sonogram

[OP-177]

Is it possible to detect women with increased preeclampsia risk by evaluation of first and second trimester screening tests markers in combination? A retrospective case-control study

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Objective: Preeclampsia is a pregnancy-specific syndrome with high maternal and neonatal morbidity, mortality and systemic side effects. The aim of this study was to determine the predictive value of PAPP-A MoM, free ß-hCG MoM and NT MoM, and AFP MoM, HCG MoM, and UE3 MoM in preeclampsia (mild preeclampsia and severe preeclampsia).

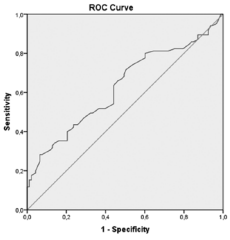
Material and Methods: This retrospective case-control study has been conducted in Ankara Zekai Tahir Burak Women's Health Practice and Research Center Hospital Perinatology Clinic by evaluation of the records of patients who who have been diagnosed with preeclampsia between January 2013 and December 2016 and had delivered at our hospital. We randomly assigned 93 patients to our control group who did not have any additional obstetric problems, who had delivered in our hospital. Demographic characteristics of the patients, laboratory results, obstetric outcomes and first trimester and second trimester screening test results were collected from the hospital records. Of the 85 preeclamptic patients, 32 had mild preeclampsia and 53 had severe preeclampsia. Results was analyzed by Mann-Whitney U and Student t, and Fisher's Exact Test. Parameters which we assumed to predict pregnancy outcomes were assessed by ROC curve.

Results: Of the 178 patients in the study group, 85 have been diagnosed with preeclampsia and 93 have been assigned as control group. When the control group was compared with the preeclampsia group the preeclampsia group according to the first and second trimester screening test results, the low level of PAPP-A MoM, the high level of HCG MoM and NT MoM were statistically significant ($p=0.040$, $p<0.0001$, $p=0.003$, respectively). When we divided the preeclampsia group as mild preeclampsia and severe preeclampsia, HCG MoM and NT MoM values were significantly high in the severe in the severe preeclampsia group ($p<0.0001$, $p=0.001$, respectively). After multiple logistic regression analysis, NT MoM (OR=10.8; 95% CI=2.5-51.5; $p=0.003$) and HCG MoM

(OR: 2.5; 95% CI: 1.2-5.2; p=0.007) were significant parameters for predicting preeclampsia.

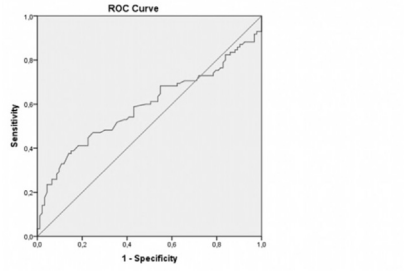
Conclusion: Low levels of PAPP-A MoM, high levels of HCG MoM and NT MoM are useful predictive markers for evaluation of preeclampsia risk for prediction of preeclampsia. However, these markers have not been found to be clinically useful for mild preeclampsia group when compared with severe preeclampsia group in terms of distinguishing from normotensive group. NT MoM and HCG MoM elevation for severe preeclampsia group are significant markers for preeclampsia predicting. However, we can not predict preeclampsia with high sensitivity by using these parameters alone in the prediction of preeclampsia. By combining these results with clinical risk factors, we can achieve success in prediction of preeclampsia.

Keywords: First trimester, prediction, preeclampsia, second trimester, serum screening markers



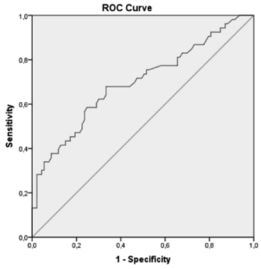
NT-MoM Value			95% Confidence Interval	
Area Under Curve (AUC)	Standart error	P value	Lower bound	Upper bound
0,628	0,042	**0,003**	0,545	0,711

Figure 1. ROC curve of nuchal translucency (NT) for prediction of preeclampsia



PAPP-A MoM Value			95% Confidence Interval	
Area Under Curve (AUC)	Standart error	P value	Lower bound	Upper bound
0,589	0,044	**0,040**	0,503	0,676

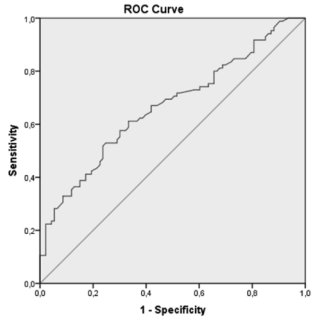
Figure 2.



HCG MoM Value			95% Confidence Interval	
Area Under Curve (AUC)	Standart error	P value	Lower bound	Upper bound
0,697	0,047	**<0,0001**	0,605	0,789

Cut-off value for total hCG MOM	1.09
Sensitivity	67%
Specificity	67%

Figure 3.



Total HCG MoM Value			95% Confidence Interval	
Area Under Curve (AUC)	Standart error	P value	Lower bound	Upper bound
0,666	0,041	**<0,0001**	0,587	0,746

Figure 4

Table 1. Demographic characteristics of preeclamptic and normotensive groups (N:178)

Parameter	Preeclamptic group (N:85)	Normotensive group (N:93)	P value*
Age (years) (mean± SD)	30.5 ± 6.7	26.1 ± 5.3	**<0.0001**
Gestational age (weeks) (mean± SD)	34.5 ± 4.4	38.6 ± 2.1	**<0.0001**
Body mass index (kg/m²) (mean± SD)	31.8 ± 6.2	28.9 ± 4.4	**0.001**
Nulliparity (N, %)	42 (49.4%)	45 (48.4%)	0.891
Smoking (N, %)	12 (14.1%)	13 (14%)	0.979
IVF Pregnancy (N, %)	2 (2.4%)	0	0.227

*Mann Whitney U test P value

Table 2. Comparison of demographic charactesristics, serum screening markers, blood chemistry and birthweight values of mild and severe preeclampsia groups (N:85)

Parameter	Mild Preeclampsia (N:32)	Severe Preeclampsia (N:53)	P Value*
Age (years)	31.5 ± 6.3	29.9 ± 7.0	0.266
Gestational age (weeks)	35.9 ± 3.9	33.6 ± 4.5	**0.010**
Body mass index (kg/m²)	31.7 ± 6.1	32 ± 6.3	0.982
NT (MOM)	0.8 ± 0.2	0.9 ± 0.2	0.123
PAPP-A (MOM)	1.0 ± 0.6	1.1 ± 1	0.789
Free- Beta HCG (MOM)	1.7 ± 2.2	1.3 ± 0.8	0.989
HCG (MOM)	1.3 ± 1.0	1.6 ± 1.1	0.147
AFP (MOM)	1.0 ± 0.4	1.2 ± 0.8	0.657
uE3 (MOM)	0.9 ± 0.2	0.9 ± 0.3	0.425
ALT (U/L)	18.8 ± 7.1	46.8 ± 100.7	0.063
AST (U/L)	13.0 ± 4.7	55.5 ± 148.0	**0.047**
BUN (mg/dL)	17.6 ± 6.2	23.7 ± 9.5	**0.002**
Creatinine (mg/dL)	2.8 ± 12.7	0.6 ± 0.1	0.109
Birthweight (grams)	2804.0 ± 987.3	2153.9 ± 1063.8	**0.004**

*Mann Whitney U test P value; MOM: Multiple of median

Table 3. Multivariate logistic regression analysis of first and second trimester serum screening markers for prediction of preeclampsia (N:178)

Parameter	Relative Risk	P value	95% Confidence Interval
NT (MOM)	**10.8**	**0.003**	**2.3 – 51.5**
PAPP-A (MOM)	1.1	0.57	0.7 – 1.9
Free- Beta HCG (MOM)	0.9	0.95	0.62 – 1.5
Total HCG (MOM)	**2.5**	**0.007**	**1.2 – 5.2**
AFP (MOM)	1.1	0.68	0.5 – 2.3
UE3 (MOM)	0.8	0.66	0.3 - 2

[OP-178]

Effect of prolonged fasting duration on 50 gram oral glucose tolerance test in the diagnosis of gestational diabetes

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Objective: 50 gr glucose challenge test (GCT) is widely used for screening gestational diabetes mellitus (GDM). The aim of this study was to investigate the effect of fasting duration before 50 gr GCT on the results of the screening test.

Material and Methods: We have recruited 508 low risk pregnant women in this cross-sectional study. During the study period all patients who underwent 50 gr GCT between 24-28 gestational weeks at the Zekai Tahir Burak Hospital were enrolled without considering fasting situation. Pregestational diabetes, multiple gestations, and a history of GDM and macrosomia were excluded. Fasting duration, GCT results, and demographic features of the patients were evaluated.

Results: A statistically significant positive correlation was found between fasting duration and 50 gr GCT values (r=0.122, p=0.006). The area under the receiver operator characteristics curve analysis for the fasting duration and positive 50 gr GCT result was 0.610, p<0.001 (95% CI 0.561-0.658) (Figure 1). The best cut-off value according to Youden Index was found as 6.5 hrs. with 85.85% sensitivity and 38.61% specificity. Our results showed that 86% of the patients with fasting duration >6.5 hrs. had positive GCT while 61% of the patients with fasting duration <6.5 hrs. had positive 50 gr GCT results. (Relative risk: 2.73; 95% CI, 1.893-3.936; p<0.0001). There were no significant differences between the fasting duration groups in terms of maternal age, gestational age, body mass index, fasting plasma glucose levels and GDM prevalence (all p>0.05) (Table 1).

Conclusion: According to our findings, fasting duration more than 6.5 hrs. resulted with 2.7 times more unnecessary 100 gr glucose tolerance tests (GTT). We recommend that if the patients have a fasting duration more than 6.5 hrs. rather than two step GCT one step 75 gr GTT should be offered after waiting for 90 min for patients with a fasting duration >8 hrs. 75 gr GTT must be the choice for screening.

Keywords: Glucose challenge test, oral glucose tolerance test, fasting duration, gestational diabetes mellitus

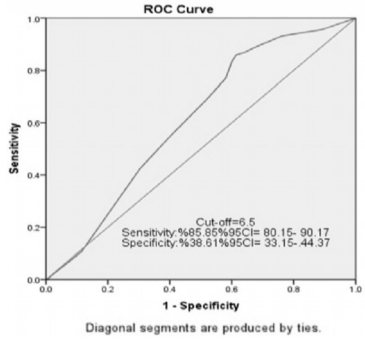


Figure 1. Area under ROC curve analysis of the fasting period and 50 gr GCT results

Table 1. Baseline characteristics and results of the study population

	Fasting <6.5 hr (n=146)	Fasting >6.5 hr (n=362)	p value
Age	26 (18-42)	27 (16-46)	0.231
Gestational week	26 (24-28)	26 (24-28)	0.254
BMI	26.39 (14.88-39.06)	27.11 (17.36-41.67)	0.074
FPG	83 (66-110)	85 (60-117)	0.063
50 gr GCT value (range: 66-218 mg/dL)	122.73±26.79	134.31±28.74	<0.0001
N of patients with GCT value >140 mg/dL (%)	186 (61.4)	176 (85.9)	<0.0001
GDM n (%)	12 (41.4)	57 (32.4)	0.397

[OP-179]

Maternal serum sestrin 2 levels in preeclampsia and their relationship with the severity of the disease

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Objective: We aimed to evaluate the SESN2 concentrations in the maternal blood circulation of healthy pregnant women and those diagnosed with PE and severe PE, and whether they have any relationship with the clinical severity of the disease.

Material and Methods: A total of 80 pregnant women, 30 with normal pregnancies, 26 with PE, and 24 with severe PE, were included in this

study. The diagnosis of PE was based on blood pressures measured at least twice at 6-hour intervals after 20 gestational weeks in patients without any history of hypertension above 140/90 mmHg in the presence of proteinuria (protein >300 mg/day, a spot urine protein/creatinine ratio >0.3 mg/dL, or >1+ by dipstick). A blood pressure of ≥160/110 mmHg, the presence of thrombocytopenia (<100000/μL), newly developed cerebral and visual symptoms, progressive renal failure (serum creatinine >1.1 mg/dL), an increase in liver enzymes, severe upper right quadrant or epigastric pain resistant to medical treatment, and the development of pulmonary edema established the diagnosis of severe PE. The normotensive control group consisted of age, gestational age, and body mass index matched pregnant patients without diagnoses of PE.

Results: The mean arterial pressure, severe proteinuria, number of HELLP syndrome cases, and serum SESN2 levels in the severe PE group were significantly higher than those in the other groups ($p<0.001$, $p<0.001$, $p=0.006$, and $p=0.004$, respectively). Negative correlation was found between the birth interval ($r=-0.262$, $p=0.019$) and the SESN2 level.

Conclusion: SESN2 seems to play a role in the pathophysiology of PE, especially in severe PE cases.

Keywords: Preeclampsia, oxidative stress, sestrin 2

Table 1. Clinical characteristics of the PE, severe PE, and control groups

	Control (n=30)	PE (n=26)	Severe PE (n=24)	p value
Age (years)	28.8±5.5	30.1±5.3	31.9±5.2	0.113
Gravida (n)	2 (2)	2 (2)	2 (3)	0.899
Para (n)	1 (2)	1 (2)	1 (2)	0.806
BMI at blood sampling (kg/m^2)	28.3 (4.4)	31.2 (4.9)	32 (8.9)	0.095
Maximum MAP (mmHg)	80 (7.5)	106.7 (6.3)†	118.3 (17)*†	<0.0001
GA at blood sampling (weeks)	33.0±2.5	33.1±3.2	32.9±3.3	0.978
GA at delivery (weeks)	39.0 (1.3)	35.7 (3.0)†	34.5 (5.3)†	<0.0001
Birth weight (g)	3125 (470)	2165 (1070)†	1665 (975)†	<0.0001
İnterval (weeks)	5.8 (3.6)	1.5 (2.0)†	0.4 (1.3)*†	<0.0001
HELLP syndrome n (%)	-	-	4 (16.7)*†	0.006
Severe proteinuria n (%)	-	6 (23.1)†	12 (50)*†	<0.0001
Abnormal UtA Doppler n (%)	-	14 (53.8)†	17 (70.8)†	<0.0001
Abnormal UA Doppler n (%)	-	8 (30.8)†	13 (54.2)†	<0.0001
FGR n (%)	-	13 (50)†	17 (70.8)†	<0.0001
Sestrin 2 (ng/mL)	0.749 (0.60)	0.733 (0.35)	1.891 (4.83)*†	0.004

PE: Preeclampsia, BMI: Body mass index, MAP: Mean arterial pressure, GA: Gestational age, HELLP: Hemolysis, elevated liver enzymes, low platelet count, UtA: Uterine artery, UA: Umbilical artery, FGR: Fetal growth restriction. Data are expressed as the median (interquartile), mean (±SD), or number (%). The Kruskal-Wallis test followed by the Conover's post-hoc test or the ANOVA followed by the Tukey-Kramer post-hoc test (age, GA at blood sampling) were used for the two-group pairwise comparisons. A chi-squared test was used to compare the proportions. *p<0.05 versus PE, †p<0.05 versus controls

[OP-180]

The reference values of ductus venosus pulsatility index between 11-13+6 weeks pregnant women in our region

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Objective: The ductus venosus pulsatility index (DVPI) is lately populated ultrasonographic measurement of first trimester evaluation of pregnancy. The value of DVPI is an ongoing discussion in the literature and reference value in normal population is not established yet. In this study we aimed to set a reference value for DVPI.

Material and Methods: We retrospectively evaluated our first trimester ultrasonography records that performed between 2016-2017. Our inclusion criteria are; singleton, CRL (crown-rump length) between 45 and 84 milimeter (mm), absent of structural abnormalities in the ultrasound exam or chromosomal abnormalities in upcoming analysis. Records of 820 patients evaluated and 458 of them included to this study according to the inclusion criteria. All ultrasound exams performed by a single operator. Voluson E8 (General Electric Healthcare, Little Chalfont, 5-8 MHz 3D transducer) was used during the sonographic exam by transabdominal route. Gestational weeks were designated by CRL measurements at the beginning of the exam. Nuchal translucency (NT), nasal bone visualization, tricuspid valve regurgitation (TR), "a" wave pattern and DVPI measurement were performed respectively. To evaluate DVPI, mid-sagittal view of the fetal profile was obtained, color Doppler and pulse Doppler gate was placed in the distal portion of the umbilical sinus, at least three typical ductus venosus (DV) waveforms were detected. Spss 21.0 statistical programme was used to analysis variables.

Results: Mean age, body-mass index, CRL, gestastional age, NT were 30.3 (18-45), 23.9 (15.5-46.6), 59.5 mm (45-79), 12.3 (11.2-13.6), 1.58 (0.73-2.62) and median gravida, parity were 2 (1-8), 0 (0-4), respectively. 'a' wave pattern were identified in all cases, besides TR were not detected in any cases. Measurements of DVPI were fitting to Gaussian distrubiton according to Shapiro-Wilk test ($p=0.252$). Mean DVPI was 0.98, also 5th and 95th percentiles were fitting to 0.73 and 1.22 values which is referring to ±2 SD. Our statistical analysis revealed that below 0.73 and above 1.22 values of DVPI are out of the normal range in our cohort.

Conclusion: The value of DVPI measurement is an ongoing debate in literature. In this study we have defined the mean and ranges of DVPI in our cohort. Further studies are needed to demonstrate the clinical importance of DVPI especially in patients with abnormal DVPI measurement.

Keywords: First trimester, ductus venosus, Doppler, pulsatility index, reference range

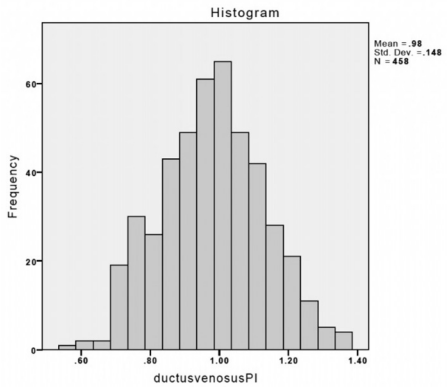


Figure 1. Histogram of DVPI measurements

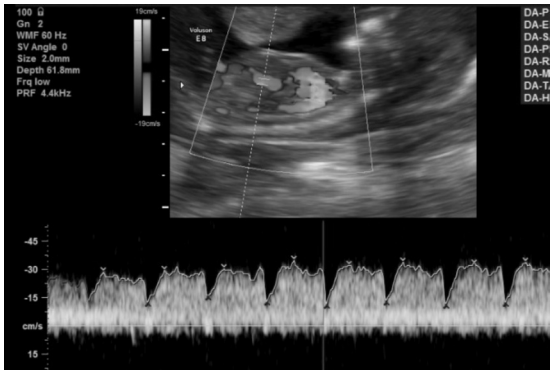


Figure 2. Mid-sagittal view of fetal trunk. DV was identified using color Doppler

[OP-182]

Effects of hereditary thrombophilia gen mutations and thromboprophylaxis on perinatal outcomes in patients with recurrent pregnancy loss

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Objective: Although many studies have been conducted related to the effect of thromboprophylaxis on perinatal outcomes in patients with hereditary thrombophilia, studies with controversial results are still published and efforts are being made to reach a consensus on the management of these patients. The aim of this study was, to investigate the relationship between cases of gen mutations and complications developed during current pregnancy follow-ups and to investigate the effect of thromboprophylaxis on perinatal outcomes in patients with recurrent pregnancy loss (RPL).

Material and Methods: Two hundred seventy eight pregnant with an history of RPL were examined in the study. Demographic characteristics and obstetric data of RPL cases receiving and not receiving thromboprophylaxis low molecular weight heparin (LMWH) (enoxaparin 40 mg/day) and/or Acetylsalicylic acid (ASA) were recorded. Methylenetetrahydrofolate reductase (MTHFR) C677T, A1298, factor V(FV) G1691A, H1299A-R2 and prothrombin (FII) gene mutations were analyzed and groups were compared in terms of perinatal outcomes (pregnancy loss, number of live births, birth week, birth weight). Statistical analysis was performed using the SPSS ver.17.0 program, $p \leq 0.05$ was accepted as statistically significant.

Results: In 29 (10.4%) cases, no gene mutation was found. In the remained cohort, MTHFR C677T and/or A1298C gene mutations were present in 243 (87.4%) cases. FV G1691A and/or H1299A-R2 gene mutations were determined in 63 (22.7%) cases and FII gene mutation was present in 15 (5.4%) cases. The number of cases with only one FV gene mutation was 6 (2.2%). All the subjects with FII gene mutations (n=15) were in combination with MTHFR and/or FV mutations. In single gene heterozygous mutation group; there were no significant differences in live birth rates, term or preterm birth rates, gestational age at birth and birth weight, and no difference between the groups receiving and not receiving thromboprophylaxis. Exceptionally; in cases with heterozygous MTHFR mutations, live birth rates were increased in the group receiving thromboprophylaxis (64.5% vs. 41.2%, p=0.010). The number of cases with multiple gene mutations was found to be 70 (multiple MTHFR ± FV ± FII heterozygous and/or homozygous gene mutations in combination) and the most common was Heterozygous MTHFR + Heterozygous FV [n=36 (51.4%)]. In cases with multiple gene mutations, live birth rates were significantly increased (64.4% vs. 12.5%, p=0.006). There were no statistically significant effects of different thromboprophylaxis modalities on perinatal outcomes. When only LMWH and LMWH + ASA were compared, there was no significant difference in terms of perinatal outcomes and the alive birth rates were similar between the groups (78.3%, n=18/23 vs 50% n=3/6; p=0.242).

Conclusion: Thromboprophylaxis significantly increased live birth in multiple gene mutations and heterozygous MTHFR mutations; but there was no statistically significant effect of different thromboprophylaxis modalities on pregnancy outcomes. The direction of further research with a larger sample size should focus not only on the simple relationship of thrombophilic genes polymorphisms and RPL risk but also on gene-gene and gene-environment interactions.

Keywords: Abortus, mutation, thromboprophylaxis

[OP-183]

Successful treatment of primary fetal hydrothorax with thoracoamniotic shunt

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Objective: Fetal hydrothorax is a condition in which fluid accumulation occurs in the pleural space. It may occur unilaterally or bilaterally, and may be primary or secondary. Our purpose is to present a case with primary hydrothorax treated with shunting.

Material and Methods: A 24-years-old (G1P0) in vitro fertilization patient was admitted to our department after a routine ultrasound scan with fetal left hydrothorax at 28th week of gestational age.

Results: Our sonographic examination revealed severe pleural effusion on left hemithorax, very significant mediastinal shift and mild polyhydroamnios. Umblical artery, middle cerebral artery and ductus venousus Doppler measurement were normal. Mid-trimester sonography and the last examination at the 24th week were without any anomalies. We performed detailed ultrasound evaluation to confirm the diagnosis of fetal thoracic abnormality and exclude other anomalies so it was accepted as a primary hydrothorax. After 5 days minimal ascites was developed. Invasive procedure was planned to diagnose the etiology of the pathology and for treatment at same time. At 30th week gestation, we performed amniocentesis to evaluate for chromosomal abnormalities, cell counts and toxoplasmosis, cytomegalovirus and parvovirus infections. Harrison Fetal Bladder Stent (Cook, Inc. IN) was used and it was placed under continuous ultrasound guidance form left dorsal part of the fetal thorax. Pleural effusion was diminished after three hours. Thirty second week evaluation showed entirely normal thorax and normal fetal echocardiography. Chromosome analysis and infectious agents PCR tests also were normal. Due to the onset of spontaneous labour at 37th week, 2630 gr female baby was delivered with cesarean section. Apgar scores were 8 at 1 min and 9 at 5 min. She stayed in newborn intensive care unit for a few days. The baby is doing well at 3 months of age.

Conclusion: Fetal hydrothorax (also pleural effusion) is an uncommon finding, occurring in 1:8600 to 1:15,000 pregnancies, with male fetuses affected more frequently than female. It is more commonly part of a more complex disease, and frequently associated with hydrops. Primary fetal hydrothorax is a diagnosis of exclusion and only be confirmed postnatally. Major consequences of hydrothorax are lung hypoplasia and hydrops due to mediastinal shift. Polyhydramnios is also seen because of the esophagus compression. First of all, detailed anatomic survey, karyotyping and infection screening is mandatory. Mild to moderate form can be observed expectantly but severe forms virtually always develop hydrops. Severe hydrothorax with significant mediastinal shift and hydrops are poor prognostic signs. Treatment goal is to prevent from lung hypoplasia and to restore cardiac functions. Thoracoamniotic shunting for fetal hydrothorax provides continuous decompression of the fetal chest, allowing lung expansion. In different studies, the survival of isolated primary hydrothorax treated with thoracoamniotic shunting is 90% and mortality rates are reduced to 10% to 30% for nonhydropic fetuses. Carefully selected fetuses with primary pleural effusions can benefit from shunting procedure, allowing shifting and hydrops to resolve and finally diminish fetal death rate.

Keywords: Fetal pleural effusion, fetal therapy, pleuroamniotic shunt

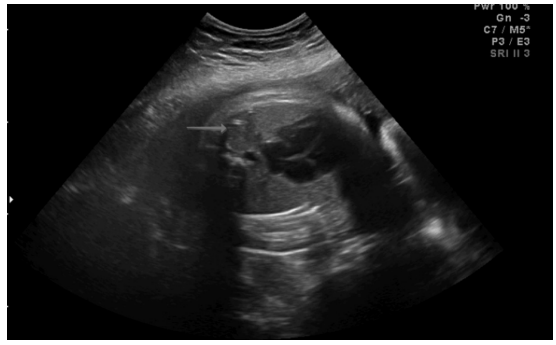


Figure 1. 4th week postprocedure



Figure 2. Preprocedure



Figure 3. Shunt

[OP-184]

The vomparison of conservative treatment and Double J Stent insertion in gestational hydronephrosis

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Objective: The aim of this study was to present and compare the pregnancy outcomes of 113 patients who were either conservatively treated or applied Double J Stent (DJS) for pregnancy-related symtomatic hydronephrosis.

Material and Methods: The study included 113 patients diagnosed with gestational hydronephrosis with the complaint of side pain at a university hospital between January 2011 and January 2014. Hydronehrosis was diagnosed if the anteroposterior diameter of renal pelvis was ≥15 mm on the renal ultrasonography. DJS was applied to 51 and a conservative approach was applied to 62 patients. A comparison was made of the pregnancy outcomes in both treatment arms.

Results: No significant difference was determined between the patients in the DJS application group and the patients in the conservative treatment group in respect of demographic characteristics (Table 1). Although a higher rate of births was determined in the first 24 hours and the first week after placement of DJS in DJS group compared to control group, the difference was not statistically significant (Table 2). In the control group, DJS insertion was not required during the follow-up period. Stent displacement did not occur in any patient with DJS. No stent removal occured befored planned time. Pregnancy-related hydronephrosis has been reported to occur in 80% of all pregnancies which is physiologic in many cases.There is ongoing controversy on the subject of management of pregnancy-related hydronephrosis. In previous studies it has been emphasized that a conservative approach is appropriate first in cases where symptoms have not continued, with no additional complications, with no impairment of renal functions and who are not infectious (1). There are also studies recommending more invasive applications such as ureteral catheterization in patients with persistant symtoms (2). No serious complications were reported from the application of DJS to pregnant patients by Çeçen et al. (1). In a study by Çoban et al. (3) maternal and perinatal outcomes have been reported to be negatively affected in symptomatic hydronephrosis cases. In our study we observe that no significant change in rate of preterm birth and intrauterine growth retardation. We did not observed any serious complication due to the application of DJS.

Conclusion: Based on the findings of the current study, it could be recommended that a conservative approach should be the first-step-treatment in cases with isolated gestational hydronephrosis, followed by DJS placement in patients where there is no improvement in the complaints. The application of DJS if required did not lead to a change in the birthweight and in the rate of preterm birth and cesarean section.

Keywords: Conservative treatment, Double J Stent Insertion, gestational hydronephrosis

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Table 1. Demographic data

	DJS group (n= 51)	Conservative treatment (n= 62)	p value
Age*	26.7±5.2	27,1±4.8	0.751
Gravidy*	2.1±0.4	2.2±0.4	0.324
Parity*	1.1±0.3	1.2±0.1	0.115
Gestational age at admission(w)*	31.3±2.2	31.5±1.6	0.575
Gestational age at birth (w)*	39.2±2.1	39.4±1.9	0.288
Birth weight (gram)*	3221±340.2	3402±284.7	0.682
Diameter of renal calyx (mm)*	21.7±3.3	20.6±4.1	0.058
Rate of cesarean section	17.6%	19.4%	0.145

w: Weeks, mm: Milimeters
*Values were given as mean±standart deviation

Table 2. Comparison of birth rates in both groups

	DJS group n= 51	Conservative treatment group n= 62	p value
Birth rate within 24 hours after*	2 (3.9%)	0	0.201
Birth rate within first week*	5 (9.8%)	2 (3.2%)	0.241

*Values were gives as numbers (percentages)

[OP-185]

Distribution of fetal cardiac anomalies according to in vitro fertilization indications in pregnancies conceived after assisted reproductive techniques

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Objective: There is no consensus in current practice guidelines on whether fetuses conceived with assisted reproductive technology (ART) are at an increased risk of developing congenital heart defects (CHD) compared with those conceived spontaneously, although previous meta-analyses report an increased risk of all congenital malformations in ART pregnancies. Also, there is poor data evaluating fetal cardiac defects and types that may be related to the underlying cause of infertility during in vitro fertilization (IVF). To present the frequency and distribution of fetal cardiac anomalies according to IVF indications.

Material and Methods: Between April 2008 and September 2017, a total of 2894 IVF babies (2286 pregnancies) were retrospectively analyzed for the frequency of major congenital cardiac anomalies and distribution of CHD according to IVF indications.

Results: The frequency of major congenital heart anomalies was 46/2894 (1.58%) in pregnancies conceived after IVF. The subgroups of IVF indications were similar in terms of age, gravida, parity and BMI. The distribution of CHD according to IVF indications were; 18/1271 (1.4%) in male factor, 14/845 (1.65%) in ovulatory dysfunction, 9/402 (2.2%) in tuboperitoneal factor and endometriosis group and 5/376 (1.3%) in unexplained subfertility group.

Conclusion: Pregnancies conceived by IVF are at increased risk for developing CHD. So, subfertility and IVF applications may be an additional risk factor for fetal CHDs. Especially, CHD risk seems to be higher in IVF pregnancies due to tuboperitoneal factor and endometriosis than the other underlying causes of infertility. However, due to heterogeneity of both ART procedures and cardiac defects, larger, prospective and population-based studies are needed to address questions of etiology so that we can provide more information for counseling prospective patients.

Keywords: Congenital heart defects, fetal echocardiography, *in vitro* fertilization

[OP-186]

Reliability and validity of Turkish version of Pregnancy Physical Activity Questionnaire in patients with gestational diabetes mellitus

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Objective: The aim of this study is to translate Pregnancy Physical Activity Questionnaire (PPAQ) into Turkish and test its reliability and validity in patients with gestational diabetes mellitus (GDM). GDM is described as carbohydrate intolerence of different levels which is encountered or recognized for the first time during pregnancy (1). GDM is a frequent complication seen during pregnancy; its prevalance varies between 1-20% according to the studied population and diagnostic criteria (2,3). The aim of GDM management is to control blood glucose levels and improve pregnancy outcomes (4). First line treatment consists of regulation of the diet and planning an exercise program. Exercise is an important treatment modality in the regulation of blood glucose levels which in turn prevents or delays insülin treatment (5,6). Exercise has a profound role in decreasing the risk for morbidity and mortality and sustaining the psychological well being in non pregnant women (7,8). However, pregnancy is a period which physical activity is limited due to anxiety related to adverse fetal and maternal results (9). Even pregnant women who are active during pregnancy has diminished intensity and frequency in activity when compared to pre-pregnant period (10,11,12). Exercise before and during pregnancy has beneficial effects on both the mother and the fetus. Studies have shown that exercise during pregnancy decreased the complications such as preeclampsia, preterm labor, GDM and need for emergency cesarean (13,14). Therefore, ACOG suggests a minimum of 20-30 minute exercise in moderate intensity every day or in the majority of the week (15). Pregnancy Physical Activity Questionnaire (PPAQ) developed in 2004 by Chasan-Taber et al., is a simple and short questionnaire measuring the frequency, duration and intensity of physical activity in pregnant women (16). Lifestyle changes, diet and exercise can control blood glucose levels most of the GDM patients. Hence, appropriate evaluation of physical activities of these patients is of utmost importance. In this study, we aimed to translate PPAQ into Turkish and perform validity and reliabilty analyses to be able to use it in pregnant women with GDM and to treat them more properly as well as to compare the results of these trials with the ones done in other countries.

Material and Methods: One hundred twenty pregnant women between the ages 18 and 40 years with GDM within 26-32 weeks of their pregnancies were included. The reliability of the questionnaire was measured by internal consistency and analysis of test-retest reliability. Concurrent validity was examined by comparing the PPAQ with the short form of the International Physical Activity Questionnaire.

Results: Test-retest intraclass correlation coefficient scores of two weeks apart varied between 0.72 and 0.95. Spearman rank correlation analysis show that PPAQ total activity values were correlated statistically significantly with total values of IPAQ short form ($p=0.048$).

Conclusion: The Turkish version of the Pregnancy Physical Activity Questionnaire is a valid and reliable tool for measurement of the physical activity level of pregnant women with GDM.

Keywords: Gestational diabetes mellitus, physical activity, PPAQ, Turkish, validation

[OP-187]

Prevalence of thyroid dysfunction in pregnancy at a tertiary referral center

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Objective: Thyroid hormones are essential for uncomplicated pregnancy and optimal fetal growth. The definitions of overt and subclinical thyroid dysfunction are defined differently. American Thyroid Association (ATA) or the American Endocrine Society suggested the following reference range: first trimester, 0.1 to 2.5 mU/l; second trimester, 0.2 to 3.0 mU/L; third trimester, 0.3 to 3.0-3.5 mU/L. However ATA suggests that high risk women serum thyrotropin (TSH) concentration measurement should be performed as soon as pregnancy is confirmed, with reflex anti-thyroid peroxidase antibody measurement if TSH is 2.5-10 mU/L. Furthermore, some studies now show that the reference ranges are not necessarily the best cut-off for identifying pregnancies at high risk of adverse outcomes. We aimed to report the prevalence of women within these reference ranges who have admitted to our antenatal outpatient clinic.

Material and Methods: We have conducted a retrospective analysis to determine the frequency of thyroid dysfunction between dates of March 2007-March 2018. During this period 121478 women's TSH has been measured in the antenatal outpatient clinic at the initial visit. Almost half of these patients' free triiodothyronine (T3) and free thyroxine (T4) levels were measured. Anti-thyroglobulin and anti-thyroid peroxidase antibodies (anti TG and anti TPO) were measured in 645 and 792 high risked patients respectively.

Results: Median age of the population was 27 (14-48). Median TSH level was 1.44 mU/L (<0.001-472.296). The distribution of the TSH values are

reported in Table 1. Median free T3 and T4 level was 3.14 (0.79-27.61) and 1.07 (0.12->12.0) respectively. The distribution of free T3 and free T4 levels are reported in Table 2. Thyroid antibodies are evaluated in highly risked population and the results are shown in Table 3.

Conclusion: Overt thyroid disease is associated with adverse obstetric and postnatal outcomes. Recent studies showed that subclinical thyroid dysfunction is also associated with adverse outcomes. TSH is the most sensitive indicator of thyroid status in pregnant women. ATA does not recommend universal screening to detect low FT4 concentrations in pregnant women who do not have any risk factors. However, Turkey is in the area of known moderate to severe iodine insufficiency; therefore universal screening should be offered to all pregnant women admitting for antenatal care. As seen from the results overt hypothyroidism and overt hyperthyroidism is very frequent in the population seeking antenatal care. Therefore routine antenatal screening for TSH is highly recommended for Turkish pregnant women.

Keywords: Thyroid disease, pregnancy, reference values

Table 1. The distribution of TSH levels

TSH mU/L	Frequency	Percent
<0.1	4571	3.8
0.1-0.38	7318	6.0
0.38-2.5	86348	71.1
2.5-5.33	20917	17.2
5.33-10	1824	1.5
>10	500	0.4
Total	121478	100.0

Table 2. The distribution of free T3 and T4 levels

	Low (%)	Normal(%)	High(%)	Total
Free T3	2658(4.3)	58067(93.3)	1537(2.5)	62262
Free T4	1502(2.3)	62363(94.9)	1829(2.8)	65694

Table 3. Results of thyroid antibodies

	Positive (%)	Negative (%)	Total
Anti TG	134(20.8)	511(79.2)	645
Anti TPO	261(33)	531(67)	792

[OP-188]

Shear-wave elastography-virtual touch tissue quantification of fetal placentas with a single umbilical artery

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Objective: In this study, we aimed to evaluate the elasticities of fetal placentas with a single umbilical artery using the virtual touch tissue quantification (VTTQ) technique.

Material and Methods: Pregnant women with fetuses with a single umbilical artery (SUA) and pregnant women with fetuses having three vessel cord (3VC) at 18-22 weeks of gestation were enrolled in the research. The placentas were evaluated and divided into three equal parts as the inner 1/3 of the placenta (fetal edge), the outer 1/3 of the placenta (maternal edge) and the central 1/3 of the placenta (central part). Shear-wave velocity (SWV) measurements were used in the elastographic evaluation of placentas by VTTQ.

Results: Forty pregnant women were included in the study (n=20 SUA, n=20 three vessel cord pregnant women). The placental acoustic radiation force ımpulse of the placenta regarding SWV measurement values of the fetal edge of the placenta in the fetuses with SUA and the control group were 0.876 and 0.957 m/sec, respectively. A significant statistical difference was found between the groups regarding the measurement of the stiffness of fetal placenta (p=0.021). There was no significant difference between the measured stiffness values of the central or outer region of the placentas.

Conclusion: In this study, we found lower SWV scores for the fetal edge of the placenta with SUA. This finding may reflect tissue elasticity level, and we hope that the use of the VTTQ technique may contribute to predicting the pregnancy-related morbidities of fetuses with SUA in the future.

Keywords: Acoustic radiation force ımpulse, virtual touch tissue quantification, single umbilical artery, placental elasticity

[OP-189]

The role of osteopontin in the pathogenesis of placenta percreta

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Objective: This study aims to determine how the expression of osteopontin is altered in the placenta percreta by comparing osteopontin expression in normal placentas and placenta percreta tissues.

Material and Methods: Placental tissues from hysterectomy materials which were histopathologically diagnosed with placenta percreta (study group, n=20) and placental tissues obtained from normal term pregnancies (control group, n=20) were immunohistochemically stained with osteopontin antibody. The groups were compared with respect to the intensity of cytoplasmic staining for osteopontin.

Results: The study and control groups were similar with respect to age, gravidity, parity, gestational age at birth, number of previous cesarean deliveries and curettages and hemoglobin levels at hospital discharge (p>0.05 for all). Immediate postoperative hemoglobin was significantly lower and the need for blood transfusion was significantly higher in the placenta percreta patients (p=0.001 for both). Placental osteopontin

expression was significantly altered in the placenta percreta group (p=0.020) (Figure 1, 2). Negative staining for placental osteopontin was significantly more frequent in the placenta percreta group than the control group (9/20 vs 0/20, 45.0% vs 0%, p=0.037). Osteopontin (OPN) is a secreted glycoprotein with a role in cell-cell adhesion, cell-extra-cellular matrix communication and cell migration. The binding of OPN to integrin, located in the membrane of uterine luminal epithelium cells, plays a role in the adhesion of the conceptus. In normal placenta, OPN is strongly present in the extravillous trophoblasts and cytotrophoblasts of the villous trophoblasts which are capable of proliferation and invasiveness (1). In addition to the role in early pregnancy, the expression of OPN in the placenta has been shown in the later weeks of pregnancy (2). When these findings are interpreted together, it has been suggested that OPN acts in trophoblastic proliferation and invasion, and, thus, placentation. To the best of our knowledge, this is the first study which aims to investigate the role of OPN in the pathogenesis of placenta percreta. Our results indicated significantly weaker staining for OPN in placenta percreta when compared to normal placenta of similar gestational age. Defects in cellular adhesion molecule expression in cancer tissue has been shown to be associated with increased cellular invasion (3). Supporting this information, in the placenta percreta cases of the current study, the reduced level of placental OPN expression might have decreased the decidual adhesion of trophoblasts and it can be suggested that in this way the trophoblasts could migrate more freely, forming an excessive invasion.

Conclusion: As reduced placental osteopontin expression was determined in the placenta percreta cases compared to the normal term placenta tissues, osteopontin can be considered to have a role in morbidly adherent placentation. This study is of value as the first study to investigate the changes in osteopontin expression in placenta percreta cases.

Keywords: Immunohistochemistry, osteopontin, placenta percrata

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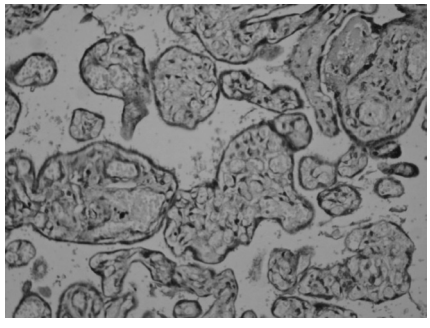


Figure 1. Weakly positive staining for osteopontin in placental tissues of the patients with placenta percreta (Mayer hematoxylin, x100 magnifications)

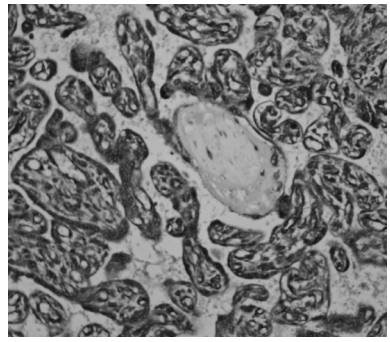


Figure 2. Strongly positive staining for osteopontin in placental tissues of the patients with placenta percreta (Mayer hematoxylin, x100 magnifications)

[OP-190]

Nasal bone nasal tip ratio; a new practical marker for Trisomy 21: preliminary report

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Objective: Hypoplastic fetal nasal bone has been proven to be one of the strongest markers in the second trimester ultrasound scan for Down syndrome screening. Although it's a strong marker, any certain length cannot be defined that can be used for every gestational week. So; rather than evaluating the fetal nasal hypoplasia according to the nomogram, it may be possible to evaluate it with a more practical method in bed side setting. To evaluate whether nasal bone nasal tip ratio can be used as a new and practical marker for Down syndrome scanning regardless of gestational week.

Material and Methods: Between 18-22 weeks of gestation, fetal nasal bone length was measured in a strict mid-sagittal view of fetal face, identifying the nasal bone, lips, palate and mandible with an angle between the insonation beam and the nose axis between 45° and 135°. The skin overlying the nasal bone and tip of the nose are identified on this plane. A second measurement was made from the proximal nasal bone to the end of the nasal tip which is the third line in front of the nasal bone and skin (Figure). The ratio of nasal bone to nasal tip was calculated. Both groups with 1/3 below and above of this ratio were compared in cases of Down syndrome and euploid fetuses. A total of 9868 patients who were referred to our perinatology unit between the 18-22 weeks of gestation for anatomical screening between 2011-2017 years were retrospectively analyzed. A total of 59 trisomy 21 cases and 2304 fetuses who defined as euploid in the antenatal or postnatal period were analyzed for nasal bone and nasal tip measurements and their ratios to each other.

Results: A total of 103 aneuploid fetuses, in which 59 had Down syndrome, 12 had Trisomy 18, 8 had Trisomy 13, 17 had Turner, 7 had other chromosomal anomalies and 2304 euploid fetuses were included in the study. The ratio of nasal bone to nasal tip 1/3 and below was 21/59 (35.5%) in fetuses with Down syndrome whereas this ratio was 31/2304 (1.3%) in euploid fetuses. This difference is statistically

significant (p<0.001). Sensitivity, specificity, positive predictive value and negative predictive value of nasal bone/nasal tip ratio ≤1/3 were 35.5%, 98.6%, 40.3% and 98.3% for Down syndrome, respectively.

Conclusion: Nasal bone/nasal tip ratio ≤1/3 may be a new promising and practical sonographic marker in the second trimester ultrasound scan for counseling patients about Down syndrome screening, regardless of gestational week.

Keywords: Down syndrome, fetal anatomical screening, nasal bone, nasal tip

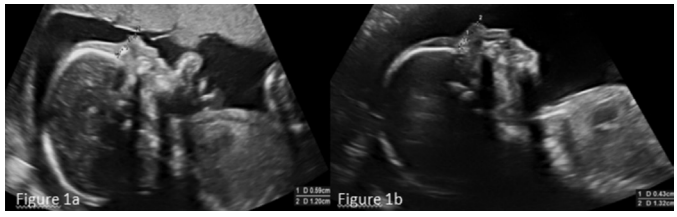


Figure 1. Weakly positive staining for osteopontin in placental tissues of the patients with placenta percreta (Mayer hematoxylin, x100 magnifications), A) Nasal bone/nasal tip ratio>1/3 in euploid fetus, B) Nasal bone/nasal tip ratio ≤1/3 with Down syndrome fetus

[OP-191]

Prenatal diagnosis and management of jejunoileal atresia secondary to meconium pseudocycst with meconium peritonitis

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We present prenatal diagnosis and management of jejunoileal atresia secondary to meconium pseudocycst with meconium peritonitis. A 25 year old gravida 4 parity 1 abortion 2 patient was referred to our clinic during the 24th gestational week due to abdominal echogenity and intestinal cyst. Ultrasound examination revealed presence of a cystic structure at umbilical cord entry level in the fetal abdomen that was consistent with intestinal dilatation (Figure 1). The fetal growth parameters, placental structure and amniotic fluid volume were all normal. Detailed ultrasound examination of fetal anatomy revealed no additional abnormalities or fetal ascites. Antenatal chromosamal screening tests were normal. Maternal blood showed negative infection screen including TORCH and parvovirus. Magnetic resonance imaging (MRI) T2-weighted images at 24 weeks of gestation showed a 30x29x22 mm cystic mass with internal septations and calcifications at umbilical cord entry level of fetal lower abdomen which was evaluated as meconium pseudocycst (Figure 2). The rest of the abdominal organs and urinary tract were normal. At the time of the 28th gestational week, we observed dilated bowel loops with the widest diameter of 20 mm, containing intraabdominal calcified areas on ultrasonographic examination (Figure 3). Jejunoileal atresia secondary to meconium pseudocycst with meconium peritonitis was considered. Cesarean section was performed at 38th gestational week by consulting with pediatric surgeon and neonatology departments. Preoperative ultrasonographic examination showed fetal abdominal circumference 370 mm and dilated bowel loop measuring 30 mm in diameter; intraabdominal calcifications were also seen. The baby was borned with meconium stained amniotic fluid and abdomen was distended (Figure 4). A few meconium passage was observed in rectal examination. On the first day of labor, laparotomy was performed by pediatric surgeon due to intestinal atresia. Intraoperative diffuse intestinal adhesions were seen. Jejunoileal atresia level at 7 cm distal to the trietz ligament was followed by secondary to meconium peritonitis and bowel reanastomosis was performed (Figure 5). Neonate tolerated feeding very well and defecated. Current follow-ups continued successfully in neonatal intensive care unit. Meconium pseudocyst is formed as a result of extravasation of meconium when bowel perforation occurs during the antenatal period and it appears as a hypoechoic mass, which represents extraluminal meconium. It is rare for a meconium pseudocyst to rupture during pregnancy. In our case, ultrasonographic examination showed a well-defined hypoechoic mass with internal echogenic structures in the fetal lower abdomen with calcifications. The MRI findings of meconium pseudocyst have rarely been described. In conclusion, due to its variable appearance on ultrasonography and MRI examinations, meconium pseudocyst may be difficult to distinguish from other intraabdominal masses and should be considered in the differential diagnosis when an intraabdominal cyst is seen with presence of intraabdominal calcifications. Therefore prenatal diagnosis and follow-ups are important for likely to develop intestinal atresia.

Keywords: Meconium pseudocyst, peritonitis, atresia



Figure 1. Cystic structure at umbilical cord entry level in the fetal abdomen that was consistent with intestinal dilatation

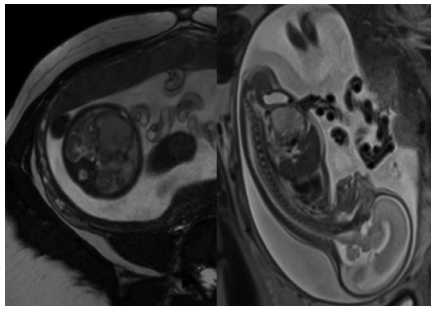


Figure 2. Magnetic resonance imaging (MRI) T2-weighted images at 24 weeks of gestation showed a 30x29x22 mm cystic mass with internal septations and calcifications at umbilical cord entry level of fetal lower abdomen which was evaluated as meconium pseudocycst



Figure 3. 28th gestational week, the dilated bowel loops with the widest diameter of 20 mm, containing intraabdominal calcified areas on ultrasonographic examination

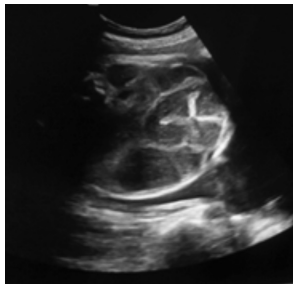


Figure 4. Preoperative ultrasonographic examination showed fetal abdominal circumference 370 mm and dilated bowel loop measuring 30 mm in diameter; intraabdominal calcifications were also seen

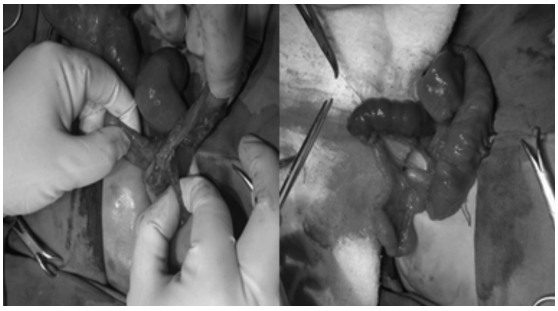


Figure 5. Jejunoileal atresia level at 7 cm distal to the trietz ligament was followed by secondary to meconium peritonitis and bowel reanastomosis was performed

[OP-192]

Retrospective analysis of advanced aged pregnancies

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Objective: To analyze pregnancies over 35 years old in our clinic for the last 10 years retrospectively. We aimed to examine parameters such as age, parity, birth weight, birth type.

Material and Methods: One thousand a hundred ten pregnant women aged 35 years and older were included in the study between January 2008 and January 2018. According to age groups, two groups were separated as early older aged group (35-40 years) and late older aged group (40-49 years). Patient registration system and file scanning were performed to examine patients' age, parity, fetal sex, fetal birth weight, birth pattern. In order to investigate the difference between the groups, we made a control group. The control group included 1110 20-35 year old pregnant women who was randomly choosen among 24560 births in the last ten years. In addition, low birth weight (<2500 gr), macrosomic fetus (>4000 gr) and stillbirth prevalences were investigated in both groups.

Results: The ratio of advanced aged births to all births was 4.5%. The mean age of advanced age pregnancies was 37.3±2.2 (35-49). 83.4% of the 1110 advanced age group (926/1110) were the early advanced age (Group 1), 16.6% (184/1110) were the late advanced age group (Group 2). As control group, 1110 pregnant women aged 20-35 year old who gave birth at our hospital between the same dates participated in the study (Group 3). According to parity evaluation, the parity was significantly higher in the study group than the control group (3.19-2.17) (p=0.000). No significant difference was found between groups in terms of birth weight (3272-3316) (p=0.61). The low birth weight rate was significantly higher in the study group (8.6%-5.9%). At the same time, the rate of macrosomia was significantly higher in the study group too (9.5%-9.1%) (p=0.042). The rate of caesarean section was significantly higher in the older age group (63.7%-56.4%). We attributed this to high parity in advanced age pregnancies, birth complications and an increased demand for tubal ligation. There was no significant difference between the fetal sexes (53.7%-53%) (p=0.383). The stillbirth rate was significantly higher in advanced age pregnancies (1.6%-0.5%) (p=0.005). When examined Group 1 and Group 2, between each other there was statistically significant difference. In Group 2; male gender was lower (47.3%-55%) (p=0.034), stillbirth rate was higher (3.8%-1.2%) (p=0.019), birth weight was lower (3193-3287) (p=0.048).

Conclusion: The prevalence of ten years results of advanced aged pregnancies was 4.5% in our study. Cesarean delivery rate was found to be higher than control group. Both the low birth weight and the macrosomic fetus ratio were found to be higher. In terms of fetal sex, there was no difference between the control group and advanced aged pregnancies. However in over age 40 group there was female fetus dominance, while under age 40 there was male fetus dominance. The risk of stillbirth was significantly higher in the over 40 year-old group compared to the control group. All these results show that; pregnancies

over 35 years of age are high-risk pregnancies necessitating more careful antenatal follow-up in which follow-up of pregnancy must be done more carefully.

Keywords: Advanced, aged, pregnancies

[OP-193]

Analysis of vaginal hysterectomies between 2015-2017 in our clinic

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Objective: The aim of this study is to analyze patients who underwent vaginal hysterectomy (VH) due to benign lesions.

Material and Methods: A retrospective chart review was performed for 100 patients who had VHs carried out in the inclusive periods 2015 and 2017. Age, uterine sizes, indications, duration of hospitalization, operation time, hematocrit levels, complications were analyzed with 100 VHs which had been performed in our department. In this retrospective study, the SPSS program was used for the evaluation. The data were expressed as mean ± standard deviation and percentile values. Statistical analyzes of differences between groups were made using Student's t-test.

Results: The different indications for VHs carry out in our department for benign diseases from 2015 to 2017 are listed in Table 1. The most common indications for VH were uterine desensus. However, most women presented with more than one indication. Demographic data pertaining to these patients groups are listed in Table 2. The mean age of the patients who underwent VH was 56 (±8.8). Prophylactic bilateral salpingoooferectomy was added to 43 patients, anterior colporrhaphy was added to 44 patients, posterior colporrhaphy was added to 39 patients, transobturator tape was added to 7 patients and sacrospinous fixation was added to 23 patients who underwent VH. When the width, height, and depth of the uterus were measured in 100 patients, the largest size was found to be 17x14x10 cm while the smallest size was found to be 5x4x2 cm. Mean size of uterus was found as 9.1x5,2x3,7 cm. The mean duration of operation was 158.08±46.13 minutes whereas the mean duration of hospital stay in the group of VH patients was found to be 3.9 (±1.5) days. When the hemogram values were examined in patients who had VH, the mean preoperative hematocrit and hemoglobin values were found to be 37.098 (±3.64) gr/dL and 12.365 (±1.35) gr/dL whereas postoperative hematocrit and hemoglobin values were found to be 31.363 (±3.94) gr/dL and 10.52 (±1.38). Five woman needed a blood transfusion postoperatively because of excessive hemorrhage. Four women who had needed blood transfusions before their operations because of anemia. Bladder injury occurred in two woman after VH. The injury was noticed during the operation and treated. There were no ureter, bowel, vesicovaginal fistulae, neurologic, or thromboembolic complications during the study. Four patients underwent laparotomy due to excessive bleeding during VH.

Conclusion: VH has advantages when compared with abdominal hysterectomy, such as esthetic advantages, rapid recovery, and an early return to routine life activities. However, VH is known to have many limitations, such as the size of the uterus and concomitant lesions within the abdominal cavity. However the range of indications for VH may vary greatly depend on the level of experience of the surgeon. Consequently, the success rate of the operation may increase with the correct indication and experienced surgeon.

Keywords: Vaginal hysterectomy, indication, rate of complication

Table 1. Preoperative diagnoses

	N:100
Uterine prolapse	34 (% 34)
Uterine desensus	52 (% 52)
Leiomyoma	19 (% 19)
Cystocele.	20 (% 20)
Rectocele	8 (% 8)
Urinary incontinance	12(% 12)
Dysfunctional uterine bleeding	3 (% 3)

*Most patients presented with more than one indication

Table 2. Demographic data relating to these patients

Demographics	
Median (range) age (years)	56.24±8.76
Gravidity	5.27±2.64
Parity	3.94±2.26
Vaginal delivery	80 (80%)
Previous cesarean	20 (20%)
Previous pelvic surgery	6 (6%)
Postmenopausal state	44 (44%)
Mean menopause duration(years)	12.23±7.131
Additional feature	
Smoke	10 (10%)
Diabetes mellitus	9 (9%)
Hypertension	30 (30%)
Coronary artery disease	8 (8%)
Thyroid dysfunction	18 (18%)
Mean (range) operating time (mins)	158.08±46.13
Additional procedures	43 prophylactic Salpingo-ophorectomy (43%) 44 anterior colporrhaphy (44%) 39 posterior colporrhaphy (39%) 7 transobturator tape (7%) 23 sacrospinous fixation (23%)
Median (range) uterine size (cm)	
Depth	9.21±2.23
Vertical length (cm)	5.28±1.96
Horizontal length (cm)	3.76±1.51
Conversion to Laparotomy	4 For haemostasis (4%)
Conversion to laparoscopy	0
Smear results	9 atrophic vaginitis (9%) 2 ASCUS (2%) 1 LSIL (1%) 1 HSIL (1%) 7 Chronic servisit (7%) 48 normal (48%) 14 no smear (14%)
Cone biopsy	3 LSIL (due to ASCUS) 1 CIN-1 (due to HSIL) 1 CIN-3 (due to HSIL)

Data are presented as mean ± standard deviation or as n (%).

[OP-194]

Burch procedure using T-shaped mesh in patients with stress urinary incontinence: A new surgical modification

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Objective: In this study, we aimed to investigate the efficacy of the Burch procedure using T-shaped mesh in patients with true stress urinary incontinence.

Material and Methods: Between December 2014 and December 2017, a total of 21 patients who underwent abdominal hysterectomy due to benign pathologies and were diagnosed with true stress urinary incontinence were retrospectively analyzed. Demographic and clinical characteristics of the patients were recorded. All patients underwent gynecological examination, transvaginal ultrasound, complete urinalysis, urine culture, stress test, Q-tip test, and Boney test. Operation Technique: In all operations, the Pfannenstiel incision was used. Following hysterectomy, the prevasical region was reached between the pubic bone and loose cellular tissue in the midline. The anterior vaginal wall was visualized through finger dissection or gentle insertion of gauze sponges and the paraurethral region was created. The wide tip of the T-shaped mesh was inserted into the ureterovesical junction and proximal paraurethral region. About two or three 2/0 prolene sutures were applied to the wide tip of the mesh to maintain a 1.5 cm lateral margin. The same procedure was performed to the contralateral side. The strain of the mesh was, then, adjusted and colposuspension was completed when the narrow tip of the mesh was sutured to the Cooper ligament with two 2/0 sutures.

Results: The median age was 49 (42 to 62) years and the median follow-up was 36 (10 to 39) months. The body mass index (BMI) was 21.15 (18.7 to 25.7) kg/m^2. The median length of hospitalization was 2 (2 to 4) days. The median duration of operation was 60 (50 to 90) min, while the median intraoperative amount of bleeding was 120 (70 to 220) cc. The median preoperative and postoperative hemoglobin levels were (12.2/10.5 to 14.5) g/dL and 12.1 (10 to 13.8) g/dL, respectively. None of the patients had any intra- or postoperative complications. On cough stress test at the end of follow-up, none of the patients had incontinence. At the end of three-year follow-up, none of the patients had urinary incontinence. During follow-up, no mesh-related complication was observed. The Burch procedure is gold standard method in the short- and long-term in patients with urinary stress incontinence. About 85% of patients benefit from symptomatic treatment. In the literature, abdominal colposuspension using the T-shaped mesh has not been described, yet. Some surgeons have suggested laparoscopy with mesh and suspension with suturing. Compared to open surgery, laparoscopic approach has been found to be less effective. Laparoscopic suspension with mesh and tacker has been defined as the standard technique. Also, learning curve of laparoscopic mesh, mesh strain and tacker use can be regarded as the factors for failure.

Conclusion: The Burch procedure is an effective treatment method in urinary stress incontinence. Higher success can be achieved using T-shaped mesh modification with a success rate of 100% in our study. However, further long-term and large-scale studies are required to confirm these findings.

Keywords: Burch procedure, T-shaped mesh, stress incontinence

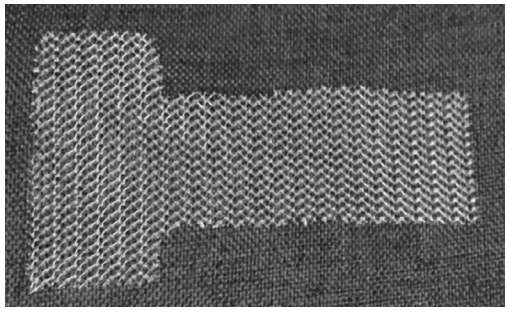


Figure 1. T-shaped mesh



Figure 2. Burc procedure with T-shaped mesh

[OP-195]

Mesh excision: Complet or incomplete?

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Objective: Investigation of the effect of total or partial removal of mesh in patients diagnosed with vaginal mesh extrusion to improve postoperative urinary complaints and sexual functions of patients.

Material and Methods: Between June 2016 and December 2017, 20 patients who were diagnosed with vaginal mesh extrusion and underwent mesh excision with total or partial mesh excision were included in the study. Age of patients, the name of the operation in which the mesh was placed and the time interval between the first operation and the mesh extrusion were recorded. Patients were filled "Urinary Distress Inventory-6 (UDI-6)" and "Index of Female Sexual Function (IFSI)" questionnaire forms at preoperatively and postoperatively. In ten patients,mesh excision was performed by opening the vaginal mucosa and removing the mesh totally (Group 1); in the remaining 10 patients, only the extrude part of the mesh was removed (Group 2). The improvement in UDI-6 and IFSF scores was compared preoperatively/postoperatively in each group and between the two groups in which the mesh was removed partially/totally.

Results: The mean age of the patients was 48.5 (minimum: 38, maximum: 65). There was no statistical difference in age between the two groups. One patient had TVT and the others had TOT in each group. In the first group, mesh extrusion developed 5.4 months after the first operation and 6.7 months after the first operation in the second group. No difference was observed between the two groups in terms of the time of appearance of mesh extrusion (p=0.105). Compared with the preoperative and postoperative UDI-6 and IFSF scores of the first and second groups, significant improvement was observed in both groups (UDI-6: 7.4 vs 5.7, p=0.006; IFSF: 12.4 vs 29.9, p=0.001), (UDI-6: 7.7 vs 5.5, p=0.004; IFSF: 12.5 vs 22.8, p=0.001) (Table 1). Compared to the first and second groups, there was no significant difference in the percentage of improvement rates in UDI-6 values (22.5% vs 28.2%, p=0.143), with a significant increase in favor of the first group in terms of improvement rates in IFSF values (143.4% vs 83.9%, p=0.001) (Table 2).

Conclusion: Vaginal mesh extrusion is an important complication following mesh-based repair for stres urinary incontinence or pelvic organ prolapse. In patients with vaginal mesh extrusion,partial or total removal of the mesh results in improvement in both urine and sexual functions. Total removal of the mesh is a feasible method because it improves sexual functions of the patients better according to incomplete removal.

Keywords: Sexual function, urinery symptom, vaginal mesh extrusion

Table 1. Improvements on UDI-6 and IFSF scores

	Preoperative	Postoperative	p value
UDI-6 scores			
Group 1	7.4±0.96	5.7±0.82	0.006*
Group 2	7.7±0.94	5.5±0.70	0.004*
IFSF scores			
Group 1	12.4±1.07	29.9±3.5	0.001*
Group 2	12.5±1.58	22.8±1.75	0.001*
UDI-6: Urinary distress inventory-6, IFSI: Index of female sexual function, *p values lower than 0.05 were accepted as significant			

Table 2. Percentage of improvement in group 1 and 2 according to UDI-6 and IFSF scores

		Improvement (%)	p value
UDI-6	Group 1	22.5±9.95	0.143
	Group 2	28.2±6.57	-
IFSF	Group 1	143.47±41.19	0.001*
	Group 2	83.94±17.90	-
UDI-6: Urinary distress inventory-6, IFSI: Index of female sexual function, *p values lower than 0.05 were accepted as significant			

[OP-196]

Vitamin D deficiency and lower urinary tract symptoms in women

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Objective: The association of vitamin D deficiency and pelvic floor dysfunction has been examined by numerous studies. Lower urinary tract symptoms (LUTS) associated with bladder filling and voiding functions are common in both sexes. A recent study reports a higher incidence of LTUS in men over 50 years old with vitamin D deficiency. The aim of the study is to investigate whether there is a difference in the LUTS frequency between women with vitamin D deficiency and the control group.

Material and Methods: In this case control study, a total of 150 women who had a measured vitamin D level within a month were divided into two groups, one with a serum vitamin D deficiency and the other with a normal vitamin D level. Both groups were evaluated in terms of menopausal status, numbers of pregnancy and delivery, pelvic examination findings, pelvic floor muscle strength, level of pelvic organ prolapse, LUTS scores, and the findings were recorded. Both groups were compared for the presence of lower urinary system symptoms. The BFLUTS (The Bristol Female LUTS) validated for Turkish-speaking populations was used to assess lower urinary system symptoms. Statistical analyses were performed via IBM SPSS Statistics 23.0. The results were considered significant at $p<0.05$ and a confidence interval of 95%.

Results: Vitamin D deficiency was detected in 67.3% of the participants. No significant differences were found between the groups regarding variables that could affect lower urinary system symptoms such as menopausal status, presence of pelvic organ prolapse and neonatal weight (fetal macrosomia) the pelvic floor muscle strength was significantly lower in the group with vitamin D deficiency than the control group. BFLUTS scores of premenopausal women with vitamin D deficiency were found to be similar to the control group, likewise no significant differences in the BFLUTS scores were detected in postmenopausal women.

Conclusion: Although vitamin D deficiency causes a significant reduction in pelvic floor muscle strength, no significant correlation was found between LUTS and vitamin D deficiency. There is a necessity of prospective randomized controlled trials to investigate the relationship between vitamin D deficiency and pelvic floor functions.

Keywords: Lower urinary tract symptoms, pelvic floor, vitamin D deficiency

Table 1. Evaluation of groups in terms of pelvic floor functions

		Group 1 (Vitamin D deficient) n=49	Group 2 (Control) n= 25	p
	PFMS (Oxford scale) (mean ± SD)	2.45±0.8	2.80±0.7	0.04
Premenopausal	PFMS (perineometer) (mean ± SD)	13.44±7.8	17.40±10.6	0.04
	BFLUTS-IS (mean ± SD)	10.77±9.5	6.44±6.8	0.06
	BFLUTS-sex (mean ± SD)	2.02±2.4	1.4±2.5	0.22
	BFLUTS- QoL (mean ± SD)	8.61±8.4	4.52±5.3	0.06
		Group 1 (Vitamin D deficient) n=52	**Group 2 (Control) n=24**	
	PFMS (Oxford scale) (mean ± SD)	2.29±0.7	2.83±0.8	0.008
	PFMS (perineometer) (mean ± SD)	13.09±9	16.2±8	0.024
Postmenopausal	BFLUTS-is (mean ± SD)	14±9.9	10.29±9	0.13
	BFLUTS-sex (mean ± SD)	5.34±3.6	4.83±3.7	0,59
	BFLUTS- QoL (mean ± SD)	14±10.5	10.5±10.1	0.15
PFMS: Pelvic floor muscle strength, BFLUTS: The bristol female lower urinary tract symptoms scale				

Table 2. Correlations among variables

	Rho*	P
Vitamin D- PFMSm	+ 0,304	0.000
Vitamin D PFMSd	+ 0,274	0.001
Vitamin D- BFLUTS-is	- 0,103	0.21
Vitamin D- BFLUTS-sex	+ 0,020	0.80
Vitamin D- BFLUTS-QoL	- 0,091	0.26
Vitamin D- age	+ 0,37	0.65
Vitamin D- BMI	- 0,124	0.13

Spearman's rho test, PFMSd: PFMS measured by perineometer, Rho*: Correlation coefficient, PFMSm: PFMS measured by Oxford scale

[OP-197]

A randomized prospective comparison of the needleless mini-sling "hammock" and "U-shape" configurations for management of stress urinary incontinence: Eighteen month follow-up results

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Objective: The evidence comparing the effectiveness of trans-obturator and retropubic routes in one same mini-sling for both routes is scarce in the literature. To compare the efficacy of needleless mini-sling placed either retropubic (U-shape) or trans-obturator (hammock-shape) to treat stress urinary incontinence.

Material and Methods: One hundred twenty six women were randomized in a 2:1 ratio to receive hammock-shaped or U-shaped of Contasure-NDL. All surgical procedures were performed by one senior surgeon experienced in anti-incontinence surgery with mesh. Cough-stress test was considered for objective outcome. Subjective outcomes consisted of International Consultation on Incontinence Questionnaire-Short Form (ICIQ-SF), Patient Global Impression of Improvement (PGI-I) and three-item Likert scale to measure satisfaction. Assessments were performed preoperatively and at postoperative 6th, 12th and 18th months.

Results: The objective cure rates at postoperative 6th and 12th months were significantly lower in U-shape group compared to hammock-shape group (85.4% vs 96.4%; p=0.034) and was comparable with hammock-shape group at postoperative 18th months (90.2% vs 96.4%, respectively; p=0.216). The subjective cure rates at postoperative 6th, 12th and 18th months were similar between groups (90.2%/90.2%/100% vs 96.4%/96.4%/96.4%, respectively; p>0.05). Median of total ICIQ-SF scores was significantly lower in hammock-shaped group (1.62±2.92) compared to U-shape (3.80±2.64) at 18th month (p<0.001). The rate of patients reported as very satisfied or satisfied to the Likert scale was 90.2% in U-shape group and 96.4% in hammock group. Patients' responses to PGI-I were majorly distributed to "much better" and "very much better" with a mean score of 1.93±2 in U-shape and 1.33±1 in hammock group at 18th month of follow-up (p<0.001).

Conclusion: U-shape placement of needleless single-incision mini-sling mimicking the retropubic route did not satisfy in achieving the patient's goal when compared to hammock-shape placement.

Keywords: Midurethral sling, mini-slings, stress urinary incontinence, tension-free vaginal tape, urinary incontinence



Figure 1. Illustration of U-shaped (mimicking retropubic) and subpubic placement of needleless minisling

[OP-198]

Short-term results of the efficacy of percutaneous tibial nerve stimulation on urinary symptoms and its financial cost

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Objective: Overactive bladder (OAB) affects 16.9% of women in the United States. Percutaneous tibial nerve stimulation (PTNS) is a third-line treatment for patients who are refractory to behavioral and pharmacologic therapies. We aimed to evaluate the effects of PTNS on urinary symptoms in patients diagnosed as having refractory OAB and investigate the cost of medications and clinical visits before and after PTNS treatment.

Material and Methods: We reviewed 60 women with refractory OAB treated with PTNS. Episodes of urinary frequency, leakage, urgency, and nocturia; number of follow-up visits; and medications were recorded. The mean quarterly drug, physician, nurse, and provider costs were calculated. The episodes of urinary symptoms, numbers of follow-up visits, and costs of medications and visits before and after PTNS were compared.

Results: Of the 60 patients with refractory OAB, 24 patients who completed 12 weekly sessions of initial PTNS were evaluated. The number of urinary symptoms and follow-up visits significantly decreased after PTNS ($p<0.05$). The average quarterly medication cost decreased from \$656.36±292.45 to \$375.51±331.79 after PTNS ($p=0.001$). After PTNS, quarterly physician and nurse visit costs decreased from \$81.73±70.39 to \$25.89±54.40 and from \$55.23±38.32 to \$15.53±19.58, respectively ($p<0.05$). The quarterly total provider cost was similar before and after PTNS.

Conclusion: PTNS treatment significantly improved urinary symptoms of patients with refractory OAB and reduced the costs of medications and physician and nurse visits.

Keywords: Transcutaneous electric nerve stimulation, tibial nerve, urinary bladder, overactive, costs and cost analysis, lower urinary tract symptoms

Table 1. Changes in urinary symptom episodes of patients with refractory overactive bladder

	Before PTNS*	After PTNS**	p
Urgency	3.12±1.19 4 (1-4)	1.79±1.21 2 (0-4)	0.001
Frequency	7.29±2.15 7 (3-12)	5.58±1.90 5 (2-9)	0.002
Leakage	2.62±2.41 2 (0-8)	1.33±1.61 1 (0-5)	0.002
Nocturia	3.33±1.81 3 (0-7)	2.17±2.06 2 (0-10)	0.01

PTNS: Percutaneous tibial nerve stimulation, *: At last visit just before PTNS treatment, **: At completion of 12 weekly sessions of initial PTNS treatment results are expressed as mean ± standard deviation, median (minimum-maximum)

Table 2. Comparison of quarterly costs before and after percutaneous tibial nerve stimulation treatment

	Before PTNS	After PTNS	p
Drug (\$)	656.36±292.45	375.51±331.79	0.001
Physician visit (\$)	81.73±70.39	25.89±54.40	0.004
Nurse visit (\$)	55.23±38.32	15.53±19.58	0.001
Provider (\$)	136.96±81.50	181.04±146.34*	0.143

PTNS: Percutaneous tibial nerve stimulation, *: With cost of maintenance PTNS session results are expressed as mean ± standard deviation

[OP-199]

The effect of stress incontinence operations on sexual functions: Laparoscopic burch versus Tvt-O

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Objective: Stress urinary incontinence (SUI) has some negative emotional and physical effects on sexual functions. SUI has negative emotional and physical effects on sexual functions. The main sexual problems in patients who were questioned for stress incontinence were reported to have low levels of libido, vaginal dryness, dyspareunia, coital incontinence, and anorgasmia. The aim of this study was to question the effects of surgical treatment of stress incontinence on sexual function using the PISQ-12 form. This present study is the first study comparing the results of a long-term gold standard technique, L/S Burch colposuspension procedure, and the minimally invasive transobturator method, which has become the gold standard surgery in recent years using the PISQ-12 questionnaire. PISQ-12 form is an interview form with fewer questions on sexual functions, providing a higher patient compliance and a good correlation with longer forms of questionnaires.

Material and Methods: A total of 77 sexually active women who were surgically treated for SUI between 2014-2015 (Table 1). Tension free transvaginal tape (TVT-O) operation and the laparoscopic Burch procedure were performed on 42 and 35 patients, respectively. Patients with isolated stress incontinence were included in this study. All patients enrolled were invited to fill out the PISQ-12 questionnaire prior to surgery and six months after surgery. Any mesh erosion or major complication encountered during two years follow-up period after surgery.

Results: The mean total postoperative PISQ-12 score in both TVT-O and Burch groups were significantly increased compared to the preoperative period ($p<0.001$ and $p<0.001$, respectively). The scores of the postoperative period were significantly higher in the Burch group ($p=0.039$); however, no differences in the amount of change in the preoperative and postoperative values by time were found between the groups ($p=0.111$) (Table 2). When the PISQ-12 scores were evaluated according to the sub-groups, physical and partner-dependent scores significantly increased in the postoperative period compared to the preoperative period in the TVT-O group ($p<0.001$ and $p=0.004$, respectively). On the other hand, emotional scores were significantly decreased and the physical and partner-dependent scores significantly increased ($p=0.004$, $p<0.001$, and $p<0.001$, respectively). When the score changes between the preoperative and postoperative periods were evaluated, the change in the physical scores were significantly higher in the Burch group compared to the TVT-O group; however, no significant difference was found in the emotional and partner-dependent score changes ($p=0.028$, $p=0.338$ and $p=0.676$) (Table 3).

Conclusion: The rate of success of the surgery for SUI is positively correlated with sexual functions. The success rate of minimally invasive methods in SUI surgery has been progressively increasing day by day. Recently, less invasive approach with transvaginal route

replaced the abdominal approach. The lesser invasive methods like pulsed magnetic stimulation, Vesair intravesical balloon, pelvic physiotherapy, biofeedback and serious gaming seems to replace surgery for SUI in the future. This conversion of preferences seems to be inevitable with future, well-planned, randomized, and controlled studies demonstrating the supportive effects of these operations on the improvement of sexual functions.

Keywords: L/S Burch, PIS-Q12, sexual functions, SUI, TVT-O

Table 1.

Table 1: Distribution of demographic data according to the group

	TOT (n=42)	Burch (n=35)	p
Age (year)	48 (39-74)	55(42-68)	**0.014**
Gravidy (n)	3 (1-8)	3 (1-5)	**0.037**
Parity (n)	3 (1-5)	2(1-5)	0.068
Abortus (n)	0 (0-5)	0(0-2)	0.182
Delivery (n %)			**0.009**
Vaginal	18 (%42.9)	20 (%57.1)	
Operative vaginal	19 (%45.2)	5 (%14.3)	
Caesarean section	5 (%11.9)	10 (%28.6)	
Previous operation (%)			0.647
no	24 (%57.1)	22 (% 62.9)	
yes	18 (%42.9)	13 (%37.1)	
Previous incontinence operation (%)			0.369
no	38 (%90.5)	34 (%97.1)	
yes	4 (%9.5)	1 (%2.9)	

p<0.05 statistically significant

Table 2.

Table 2: Comparison of PISQ-12 score who underwent TOT and L/S Burch

	PISQ-12 score			
	Pre-operative	Post-operative	Difference	P value
TOT	37.48±3.77	43.21±2.90	-5.74±4.27	***<0.001****
L/S Burch	37.71±4.39	44.77±3.47	-7.06±2.87	***<0.001****
P value	0.799	***0.039****	0.111	

p<0.05 statistically significant

Table 3.

Table 3: Comparison of PISQ-12 score parameters

	TOT				L/S Burch				
	Pre-op.	Post-op.	difference	p*	Pre-op.	Post-op.	difference	p*	p†
Emotional	11.88±4.35	11.69±4.43	-0.19	0.490	11.43±2.34	10.91±2.19	**-0.51**	**0.004**	0.338
Physical	16.12±4.66	21.19±2.63	**5.07**	**<0.001**	15.03±2.89	21.89±1.55	**6.86**	**<0.001**	**0.028**
Partneral	9.48±2.42	10.33±2.63	**0.86**	**0.004**	11.26±1.79	11.97±1.79	**0.71**	**<0.001**	0.676

p<0.05 significant
p* Comparison of preoperative and postoperative values.
p† Comparison the difference of preoperative and postoperative values between TOT and L/S Burch

[OP-200]

Leiomyo-Adenomatoid tumor of the uterus: Report of a rare entity

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Adenomatoid tumor occurs in the testicular spermatic cord and ejaculatory duct in males and in the fallopian tube and uterus in the females. These are usually small, benign lesions and are mostly incidental findings. Leiomyo-adenomatoid tumor (LMAT) is a variant of adenomatoid tumor, where in the smooth muscle component is predominant. Only nine cases of LMAT are reported so far in the English literature. A 48-year-old woman presented to the gynecology outpatient department of our hospital with the complaints of painful bleeding per vagina for the last 5 years. Clinical examination and workup revealed multiple fibroids in the uterus. On magnetic resonance imaging, 23 cm, 3 cm and 2.5 cm uterin solid masses detected (Figure 1, 2). Total abdominal hysterectomy was performed. A 220 gram, 10x9x5 cm uterus and one 23x13x10 cm subserosal pedinculed leimyoma was removed. In the sections that were removed intramurally located 2.5 cm and serosal located 3 cm two smooth contoured nodular solid masses were observed. Macroscopically, 3 cm mass appear as circumscribed masses, but not as sharply defined as in leiomyoma. Microscopically they consist of tubules and cords of varying sizes and shapes that are lined by flat or cuboidal epithelial cells (Figure 3). The microscopic appearance may mimic a malignant tumor due to irregular pseudoinfiltration with tubular formations that suggest presence of an infiltrating carcinoma into a leiomyoma or the myometrium. The immunohistochemical investigations performed. The results showed that the tumor stained positive for pan-cytokeratin (Figure 4), calretinin (Figure 5), CD31, CD34, vimentin but it was negative for carcinoembriyonic antigen (Figure 6), Wilms tumor 1, p53. The tumor was graded as low (2%) Ki-67 proliferation index. The case was diagnosed as LMAT of the uterus based on the histopathological and immunohistochemical findings. LMAT is a variant of adenomatoid tumor, where in the smooth muscle component is predominant. LMAT is rare and may mimic primary or metastatic signet ring cell adenocarcinomas due to their infiltrative pattern. Therefore the pathologists should be aware of these tumors for differential diagnosis and the pathologists must use the morphological findings together with mesenchymal originated immunohistochemical markers to avoid from misdiagnosis.

Keywords: Adenomatoid tumor, leiomyo adenomatoid tumor, uterus

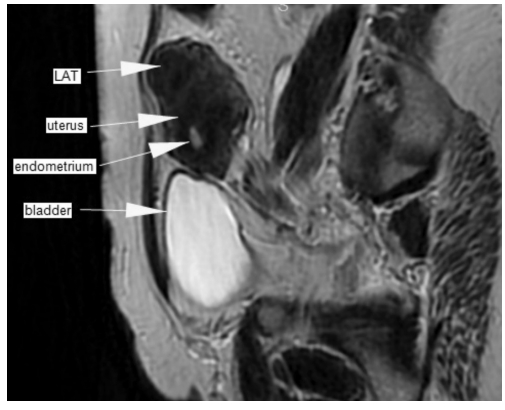


Figure 1. Leimyo ma denomatoid tumor
***MR imaging T2 sequence**

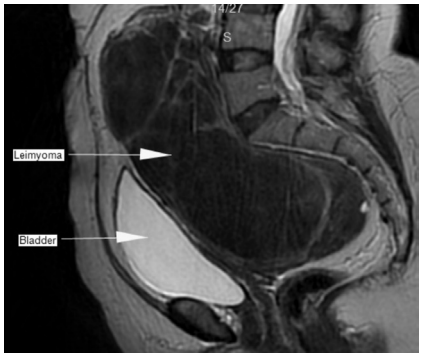


Figure 2. Leimyoma
***MR imaging T2 sequence**

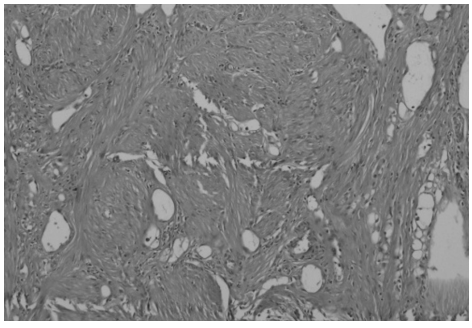


Figure 3. Hematoxylin eosin
H&E stained cystic clefts among smooth muscle bundles

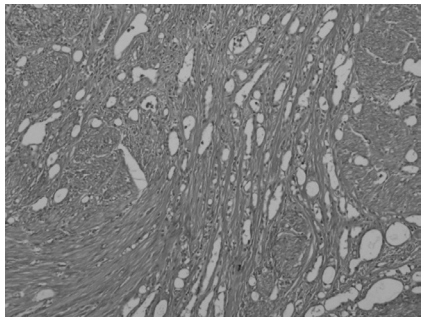


Figure 4. Pan-cytokeratin (pan-CK)
***pan-CK positive stained**

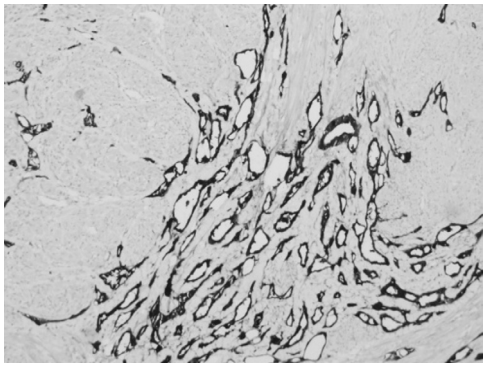


Figure 5. Calretinin
***Calretinin positive stained**

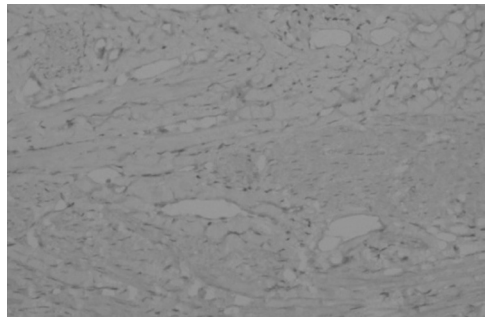


Figure 6. Carcinoembriyonic antigen (CEA)
***CEA negative stained**

[OP-201]

Postcoital uterine rupture in a patient with placenta accreta

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Objective: Uterine rupture is rare in second trimester in repeated cesarean. By presenting this case, we aimed to antenatal diagnosis of placenta accreta should be established and followed in experienced centers.

Material and Methods: The patient who repeated cesarean presented to our clinic for pregnancy follow up.

Results: The patient at the age of 39 with 3 cesarean and an abortion history has resorted to our clinic. At the 18th week control the fetus development was in accordance with its week, no fetal pathology was observed; however, the placenta was invaded to the anterior wall of the uterus. Placenta was not reaching cervix and cervical length was measured to be 42 mm. At the 22nd week control placenta was observed to exceed incision line myometrium. The patient was informed about her situation. The patient didn't have any kind of pain or vaginal bleeding. The cervical length was measured to be 38 mm. At the 25th week the patient resorted to emergency service with severe pain, nausea and vomiting. Her situation was evaluated by emergency specialist. Blood pressure 80/50, pulse: 120, and nausea and vomiting was going on. As the abdoman was sensitive and tense an urgent ultrasound was conducted. Upon detecting fetal heart rhythm was bradycardic and widespread free liquid in the abdomen. The patient was immediately taken to cesarean. During the operation approximately 2.000 cc fresh blood was evacuated. The anterior wall of the uterus was ruptured at the point where the placenta was invaded. Fetus was taken out. The APGAR score was 3. The damage in the front wall was repaired. During the operation, as the result of hemogram was hemoglobin: 6.4, hematocrit: 23 the patient was provided with erythrocyte suspension and fresh frozen plasma. The patient was taken to intense care unit for further evaluation. No anamnesis was asked for when the patient resorted to the emergency service due to the fact that her condition was not good. When she pulled herself together at the intense care unit, she stated that an hour before her condition started she had coitus and she woke up with a severe pain and nausea-vomiting. The patient was evicted after three

days post operation. The fetus was born 640 gr and died on the 24th day in the newborn intense care unit.

Conclusion: Placenta accreta risk increases in case of repeated cesarean. In these patients, the uterine rupture can be seen in the early weeks. If there is placenta invasion anomaly, couitus might be risky.

Keywords: Placenta accreta, uterine rupture, coitus



Figure 1. Uterine rupture

[OP-202]

Harlequin baby with mild skin disorder: Two years follow up

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The ichthyoses is a keratinization disorder of skin. These disorders are heterogeneous group. The great majority of ichthyoses are inherited. Harlequin ichthyosis (HI) is a member of nonsyndromic inherited ichthyosis. HI is a rare, severe form of congenital ichthyosis, which may be fatal. Newborns with HI present with thick, fissured armor-plate hyperkeratosis, severe ectropion, eclabium, and malformation of the auricle. Early complications result from infection due to fissuring of the hyperkeratotic plates. Prior reports suggest that the mortality rate in the neonatal period is approximately 50 percent, and many infants with HI die shortly after birth, but improved neonatal intensive care and early treatment with oral retinoids may improve survival. Twenty three years of pregnant woman applied to hospital with premature rupture of membranes at 37 weeks gestation. There was no personal or family history of diabetes, any exposure to teratogenic drug, no history of any chronic medical disorders. Her present pregnancy was followed in a local hospital with regular follow-up with ultrasonography examination. There was no comment on any congenital malformations. She gave birth 2800 g male fetus with vaginal delivery. Apgar score was normal 8/10 at 1 and 5 minutes respectively. At newborn examination abnormal parchment like membrane covering the head was seen. There was associated ectropion and eclabium. Due to excess of scales around the mouth gave the typical fish-like appearance. The family history was taken and pedigree analysis was done. There was no history of dermatological-related disorder or any other genetic disease. Emoillents and lubricants for hydrating the membrane were given. Prophylactic antibiotics were given to prevent sepsis The baby was referered tertiary hospital. At 2.5 years follow-up child is healthy except skin disorder. Child still use emoillent cream regularly. Neonates born with HI have generally poor prognosis. Perinatal death is very common because of sepsis or respiratory failure. In this case prophylactic antibiotics were given to prevent skin and other infections. Emolillent were used for softening face and body skin. With emoillent treatment sucking and breastfeeding was be successful. Early breastfeeding prevented malnutrition and infections. Rajpopat et al. reported a survival rate of 56%; 16 of 45 HI cases surviving for 7 years or longer and the longest surviving case reaching 25 year. Pejaver et al. reported survial of a baby with HI is 22 months. There are some reports indicating a 50% survival rate with advanced intensive care. Mithwani et al. reported survival 7 years of a male babby with HI is 7 years. Ugurel et al. reported a case that with HI was survive only 1 week. In this case, male child now 2.5 years old. He has not limb contracture, growth retardation. He use emoillent cream regularly. At neonatal period appearance of newborn nearyly fatal. However with appropriate treatment fatal infections were prevent. Neonates born with HI have generally poor prognosis. Nevertheless prognosis may be incompatible with neonatal appearance. Therefore all neonates born with HI must be treated appropriately.

Keywords: Harlequin baby, newborn, skin disorder



Figure 1. Harlequin baby in newborn period



Figure 2. At 2.5 years old

[OP-203]

Spontaneous ovarian hyperstimulation syndrome with FSH receptor gene mutation: Two rare case report

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Development of Ovarian Hyperstimulation syndrome (OHSS) is very rare in a spontaneous ovulatory cycle and it is usually seen during pregnancy. In the etiology of OHSS, higher hCG (molar pregnancies or multiple pregnancies) and thyroid-stimulating hormone (TSH) levels have been accused. In recent years, some follicle-stimulating hormone (FSH) receptor (FSHr) gene mutations have been described in patients with OHSS in the first trimester with normal hCG levels. The incidence of iatrogenic OHSS is 0.2 to 1%, and the risk of mortality is 1:45000-1:50000. Clinical findings include massive ovarian growth, abdominal distension, nausea and vomiting, abdominal and inguinal pain, loss of protein rich fluid to the third space due to increased capillary permeability, extensive abdominal ascites, dyspnea, electrolyte imbalances, the risk of thromboembolism and oliguria. In recent years, some follicle-stimulating hormone (FSH) receptor (FSHr) gene mutations have been described in patients with OHSS in the first trimester with normal hCG levels. Herein, we report two case of severe OHSS during her spontaneous first trimester pregnancy in whom a FSHr gene mutation in three gene regions was found by the genetic testing. A 20-year-old woman (Gravida 2/Para 1) who was unaware of the date of the last menstrual period and was evaluated during routine pregnancy follow-up presented with non-specific complaints, such as abdominal pain, bloating, dyspepsia, and occasional respiratory distress. Ultrasonographic evaluation revealed a single live intrauterine fetus of 12 weeks gestation. In the examination of FSHr gene mutation due to investigation of spontaneous OHSS, a mutation was identified which has been previously described and reported as a disease-related mutation. The result is shown in Table 1. Within the next three days, the laboratory parameters and clinical symptoms of the patient improved and she was discharged with suggestions to follow-up antenatal outpatient clinic visits. At 38 weeks of pregnancy, the patient gave birth of a 2.950 g healthy alive male baby and in the first postpartum month, both ovaries were in normal appearance in transvaginal ultrasonography and in Doppler examination. A 28-year-old woman (Gravida 3/Para 1) The medical and gynecological history of the patient was non-remarkable. She had regular menstrual cycles and did not use oral contraceptives or any medication for the ovulation induction. An increase in the bilateral ovarian size (left side 14x13 cm and right side 13x12 cm) and a multicystic appearance were observed. Ultrasonographic evaluation revealed a single live intrauterine fetus of 10 weeks gestation. All labaratory tests are normal. The patient was hospitalized with the diagnosis of Grade 2 spontaneous OHSS, according to the Golan classification and conservative treatment was initiated. At 40 weeks of pregnancy, the patient gave birth of a 3840 g healthy alive female baby. In conclusion, although OHSS is typically associated with ovulation induction, it should be kept in mind that this condition may also develop in spontaneous pregnancies. As it is usually self-limiting, continuation of the pregnancy is recommended. In general, the treatment recommendation is supportive care and anticoagulant treatment to prevent serious complications, such as pulmonary embolism due to deep venous thrombosis. Rarity of this condition may also be due to misdiagnosis and by missing the diagnosis that can result in mismanagement or severe complications of this condition.

Keywords: Spontaneous ovarian hyperstimulation syndrome, FSH receptor gene mutation, pregnancy complications

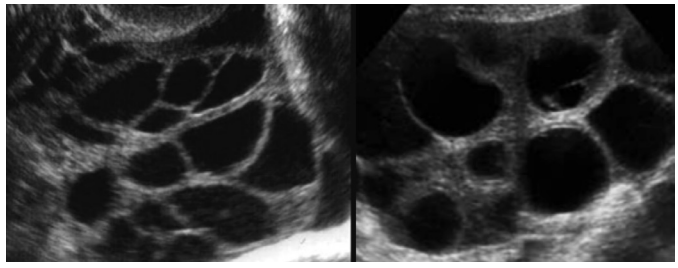


Figure 1. A multi-cystic appearance in both ovaries (left ovary, 14*13 cm and right ovary, 13*12 cm)

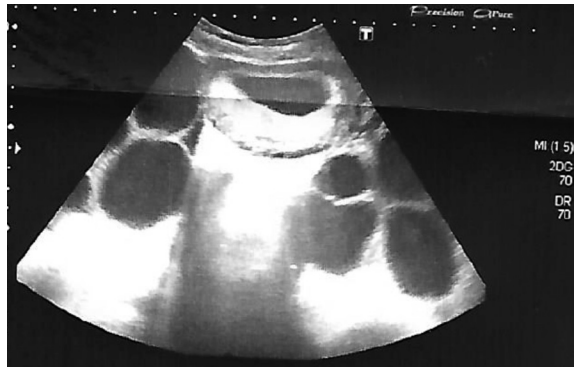


Figure 2. A multi-cystic appearance in both ovaries and gestational sac



Figure 3. A single intrauterine pregnancy with gestational age of 12 weeks according to the crown-rump length

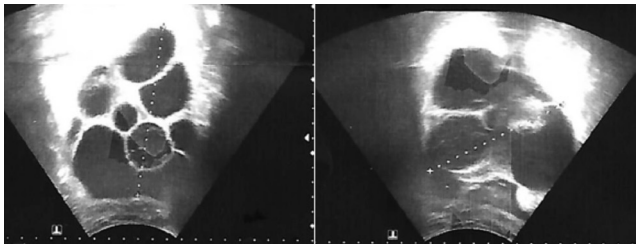


Figure 4. Bilateral overler (left ovary 12*12,5cm and right ovary 11*13cm)



Figure 5. Intrauterin pregnancy with gestational age of 10w and multi-cystic appearance in left ovary

Table 1. The result of FSHr gene mutation in the presented two case with spontaneous OHSS

Case 1	c.383 C>A p.S128Y	Homozygous
	c.733 G>C p.Ala307Thr	Heterozygous
	c.1961 G>C ve c.-29 G>A p.Ser680Asp	Polymorphism
Case 2	c.383 C>A p.S128Y p.Ser128Tyr	Heterozygous

[OP-204]

Utero-cutaneous fistula after repeated but uncomplicated caesarean section: A case report

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A fistula is a communication between two epithelium-lined surfaces. Most uterine fistula are between the uterine and the bladder or bowel (uterovesical or uterocolonic) due to postoperative injuries or infectious conditions. The causes include multiple surgeries, use of drains, incomplete closure of the incisions, septic abortion, pelvic abscesses, uterovaginal malformation, infection with actinomycosis due to intrauterine devices, curettage, difficult vaginal delivery, or use of forceps. A 31 year-old woman, P3 L3 appealed with persistent purulent discharge from pfannenstiel scar two months after third cesarean operation. She had no additional complaint. Examination revealed a well-healed low transverse scar about 10 cm in length which had an opened sinus about 10 mm, at the middle of the cesarean scar. There was no wound infection confirmed by reproduction in culture. The methylene blue test in vaginal examination was possitive. The fistula tract, one of which was between the uterus and the skin, was revealed by fistulography with a radiopaque material injection via skin hole. No endometrial activity was confirmed by endometrial thickness in breastfeeding woman. Also contrasted tomography was performed on the purpose of determining the size and the actual localization of the fistula tract for successful management. The minipill was prescribed to suppress the endometrium. The patient successfully managed with a medical approach at 9 months follow-up. Uterocutaneous fistula (UCF) is an extremely rare entity that is an abnormal communication between two epithelial surfaces, the uterus and the skin. The suspected cause of this entity was a history of multiple uterine surgeries resulting in dense adhesions between the uterus and the abdominal wall which became thinner and less vascularized. The diagnosis can be confirmed by fistulogram, tomography, MRI or methylene blue test if there is a suspicion concerning the diagnosis. In case of a suspected uterocutaneous fistula since the skin hole is too small, hysterosalpingography (HSG) with a methylene blue injection via the cervix is referable. We use first fistulography which is the most accessible technique in our hospital to confirm the fistula. There is no consensus regarding whether medical treatment is effective as an initial treatment modality. Surgical treatment varies from excision of the fistula tract to hysterectomy, which presents a challenge in young patients. Medical treatment is preferable for reducing the risk of hysterectomy. GnRH agonist induces atrophic changes in the epithelium and helps to the closure of the fistula. Endometrial epithelialization of the fistula tract has been shown by histopathology. We prefered to prescribe a minipill in breasfeeding women to induce atrophic changes in the epithelium. Fibrin glue injection under fluoroscopic guidance to the fistula tract may offer a minimally invasive procedure in case of medical treatment failure or existence of large fistula tracts. Consequently, this kind of rare fistula must be kept in mind if the patient has complaints about scar site with a story of previous repeated pelvic surgery irrespective of whether or not it is complicated. Fistula requires proper diagnosis and management according to the patient's characteristics.

Keywords: Utero-cutaneous fistula, uncomplicated caesarean section, conservative, supress, endometrium



Figure 1.

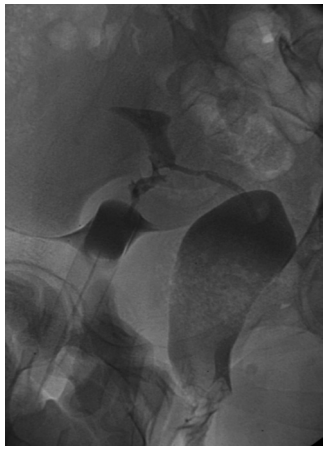


Figure 2. Image of fistulagram



Figure 3. The contrasted tomography image of UCF

[OP-205]

Manual therapy approach in chronic pelvic pain

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Chronic pain is a frequent cause of complaints to policlinics. Chronic pelvic pain is a persistent pain localized to the abdominal and pelvic region. It is thought to be very likely. This pain decreases the quality of daily and sexual life. The reasons of the chronic pelvic pain are spine and pelvic bone abnormalities, spasm of the abdominal and pelvic floor muscles, trigger points, scar tissues, sexual dysfunction, fibromyalgia, bladder and renal abnormalities and bowel motility disorders (constipation, diarrhea). Manual therapy is a treatment modality and requires special techniques administered by the professionals. Physical therapists are often used in many types of chronic pelvic pain. It is used for treating the muscle spasms and the trigger points that are seen in chronic pelvic pain. Tense and release relaxation method is used on painful areas. The patient is certainly first examined to determine hotspots in lumbar and sacral field. Then, extension exercises to sacroiliac, lumbar sacral and sacrococcygeal joints are carried out. In addition, stretch exercises are administered to sacrotuberous and sacrospinous ligaments to unstrain. Surgical history can cause scar tissues and bonds which form knots and trigger points. We also administer a similar tense and release exercise to these areas. We performed manual therapy methods, mentioned above, in our clinic to a total of 42 patients with chronic pelvic pain. Of these, 35 had endometriosis, 3 had interstitial cystitis, 2 had extensive fibromyalgia, and 2 had irritable bowel. There were 17 patients who underwent previous abdominal surgery. We observed the results by applying manual therapy 4 times with 1 week interval between illnesses. The patients Vas score has been decreased from 7 to 3 after the manipulation techniques and it was observed that dyspareunia (pain during intercourse), bowel abnormalities, state of depression and quality of life has been significantly improved. Manual therapy is a cost effective treatment modality with high patient satisfaction which can be added to medical and surgical therapies for chronic pelvic pain.

Keywords: Chronic pelvic pain, manuel therapy, muscle spasm, trigger point

[OP-207]

Laparoscopic sacrocolpopexy for treatment of vaginal vault prolapse and laparoscopic ventral mesh rectopexy operation for rectal prolapse

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We aimed to report a case of Laparoscopic Sacrocolpopexy (LSC) combined Laparoscopic Ventral Mesh Rectopexy (LVMR) for Vaginal Vault Prolapse (VVP) and Rectal Prolapse (RP) in the elderly patient. A 82 years old patient operated thirty years ago for benign indications. Last five years VVP and RP recognized.Vaginal vault was infected and nearly total rectal prolapse examined. Before operation the infection treated. Because of geriatric population is enlarging and compounded by the large numbers of women who have had a hysterectomy, an increasing number of patients in which surgical correction of vaginal vault prolapse is necessary. Both aging and inadequate support of the vaginal vault at the time of hysterectomy. Sacrocolpopexy has become a standart procedure for VVP repair and laparoscopic approach has gained popularity owing to more rapid recovery and less morbidity. And LVMR is a safe operation for rectal prolapse. Sacrocolpopexy using not absorbable meshes allows to cure pelvic organ prolapses with very good results with few complications in terms of prothetic exposure and infection. Macroporous polypropylenemesh is used for this case. Vaginal vault prolapse in elderly women is a growing problem due to increased life expectancy. Surgeons and anaesthetists may be wary of performing quality of life surgery on this higher risk group. Where surgery is undertaken, it is commonly performed vaginally; there is a perception that this is better tolerated than abdominal surgery. Little data is published about laparoscopic prolapse surgery tolerability in this population, and laparoscopic surgery is perceived within the urogynaecological community as complex and lengthy and hence inherently unsuitable for the very elderly. There is a retrospective report of fifty-five patients mean age 82.6 and underwent LSC. Short term nearly tree months follow-up 80% percent patients had objective evidence of good anatomical results with no remaining or recurring prolapse. 9% had prolapse requiring further surgery, 11% had minor residual prolapse with minimal symptoms. They concluded that

age need not be the sole determinant in the decision to undergo major elective gynaecological surgery. Laparoscopic prolapse surgery is an acceptable approach for the very elderly (1). Another retrospective study total of 2203 patients underwent surgery for LVMR. Erosion occurred in 2.4% of synthetic meshes and 0.7% of biological meshes. The median time to erosion was 23 months. But in this study is not planned for elderly ages (2). And recommendation of Cochrane Database Syst Rev. 2016 Sacral colpopexy has superior outcomes to a variety of vaginal procedures including sacrospinous colpopexy, uterosacral colpopexy and transvaginal mesh. These benefits must be balanced against a longer operating time, longer time to return to activities of daily living, and increased cost of the abdominal approach (3). As a conclusıon surgical management of pelvic organ prolapse in women depends patient status and surgeon experience and choices.

Keywords: Sacrocolpopexy, laparoscopic, rectopexy, elderly, mesh

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[OP-208]

Acquired uterine arteriovenous malformation following dilatation and curettage: An uncommon cause of vaginal bleeding

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Uterine arteriovenous malformation (AVM) is a rare disease with various clinical manifestations, characterized by irregular vaginal bleeding or a large amount of sudden vaginal bleeding, which can cause shock in severe cases and may even be life-threatening. These lesions consist of abnormal vascular proliferations and multiple variable-sized arteriovenous communications between intramural branches of the uterine artery and the myometrial venous plexus. Diagnosis requires a high degree of suspicion and is done with ultrasound and Doppler. Historically, treatment for uterine AVMs required hysterectomy; however, transcatheter uterine artery embolization has provided an alternative treatment option for patients wishing to preserve fertility. We herein report a case of acquired uterine arteriovenous malformation treated successfully by selective uterine artery embolization. A 20-year-old female, gravida 2, parite 1, abortion 1, was admitted to our hospital because of profuse vaginal bleeding lasting for two months. Her last pregnancy was a missed abortion two months ago for which she had undergone dilatation & curettage in another hospital. Her hemoglobin was 6.4 g/dL and beta-human chorionic gonadotropin (β-HCG) was zero. Transvaginal color Doppler revealed 28x23x20 mm heterogeneous lesion in the posterior myometrial wall extending to the endometrial cavity and showing high-velocity flow suggesting an uterine AVM. After she had four unites of blood transfusions she was sent to Turkey Yüksek İhtisas Hospital Radiology department for uterine artery embolization. There, the embolization was performed by supra-selection of left uterine artery, which was totally feeding the AVM, by coiling. Patient's bleeding stopped abruptly after embolization and two months later the uterine AVM disappeared completely. She is menstruating regularly for 5 months after embolization. Uterine arteriovenous malformation (AVM) is a rare but potentially severe cause of genital hemorrhage that can be life threatening. Uterine AVMs can be congenital or acquired. Acquired uterine AVMs have been attributed to a variety of causes, including pelvic trauma, surgery (curettage and cesarean section), neoplasm, or inflammation/infection. The majority of reported cases are acquired secondary to dilation and curettage. Color Doppler ultrasonography shows the tangle of vessels as serpiginous/tubular anechoic structures within the myometrium with a low-resistance and high-velocity flow pattern. In conclusion, AVMs are rare and dangerous clinical entities; their management is complicated and necessitates a high level of suspicion. Usually, these lesions are present in young women, with a previous history of spontaneous abortions. It must be kept in mind that patients may develop AVM following evacuation of uterus for pregnancy loss and the possibility of AVM must be considered in differential diagnosis.

Keywords: Uterine arteriovenous malformation, uterine artery embolization, dilation and curettage

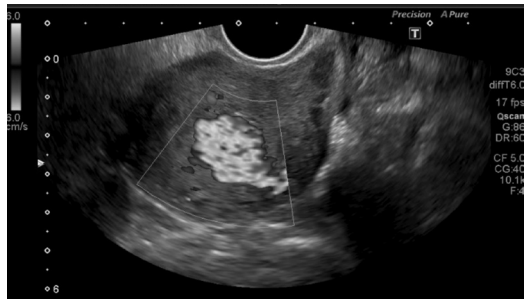


Figure 1. Color Doppler ultrasound showing uterine arteriovenous malformation

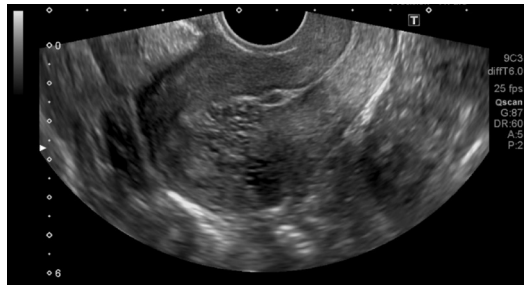


Figure 2. Gray-scale ultrasound showing uterine arteriovenous malformation

[OP-209]

Recurrent In Vitro Fertilization and intrauterine insemination failures in the presence of genital tuberculosis: Three case reports

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Genital tuberculosis is the secondary organ tuberculosis that is frequently spread by hematogenous pathway from the primary infection center of mycobacterium tuberculosis such as lung, mediastinum, pleura, lymph node, urinary system, bowel, peritoneum, skin and skeletal system. Although it is not rare in developed countries, it is still a serious cause of infertility in our country. The most frequently involved genital organ is tuba uterina and usually bilateral involvement is observed. The first and only finding is usually infertile. In the case of genital tuberculosis, menstrual blood examination, histological evaluation of endometrial biopsy, hysterosalphingography and diagnostic laparoscopy are used. We aimed to discuss tuberculosis cases detected in laparoscopic patients with IVF and IUI failures recurrent with 3 case. Bilateral tubal occlusion was observed in a hysterosalphingography who was married for three years at the age of 30 years. The endometrial cavity was also irregular. The patient failed to achieve success despite the ivf application twice. Diagnostic laparoscopy was performed due to recurrent IVF failure. The appearance of the pelvis in Figure 1 was observed. The biopsies were reported as 'granulomatous inflammation and caseification necrosis'. There was no known trait in the history of the patient. The patient was offered anti-tuberculosis treatment. The patient then came out of our watch. In this patient, we are linking pelvic tuberculosis with recurrent IVF failure. At 37 years of age, 15 years of marriage, 3 times of IVF failures. Bilateral tubal occlusion is present in the hysterosalphingography. Diagnostic laparoscopy performed on the patient showed the appearance in Figure 2. Frozen pelvis was available. The resulting biopsy was reported as 'compatible with granulomatous inflammation'. The patient stated that he had seen tuberculosis treatment together with all the family members during his adolescence. As in other cases, this patient was also thought to be the underlying genital tuberculosis of the cause of infertility. A 25 year-old 3 year married patient has undergone 2 IUI due to primary infertility and has not been successful. In the hysterosalphingography of the patient, bilateral tubal openings were observed. Then the patient underwent diagnostic laparoscopy. The passage of color material from bilateral tubules was observed. Multiple cysts were observed on the tubes only (Figure 3). It was seen that the anatomy of tuba and ovaries was deteriorated. It was thought that the fimbrians could not fulfill their mission. Biopsy and further investigation could not be performed because patient did not approve. Two years ago, the patient's husband received tuberculosis treatment but did not complete the treatment. In this case, it was thought that infertility was probably present in the presence of genital tuberculosis. The rate of pregnancy in the presence of genital tuberculosis is very low if the tuberculosis treatment is being improved. Genital organs as primary focus are very rare. It is very difficult to prove that the genital organs have been retained as primer. Tuberculosis infection causes persistent anatomical deterioration and damage as a result of dense adhesion and causes resistance to infertility by destroying silia functions. In cases of genital tuberculosis, the success rate of assisted reproductive techniques is also low, as seen in the above case reports. Tuberculosis is a condition that should be kept in mind especially in our country.

Keywords: Genital tuberculosis, infertility, recurrent IVF failure

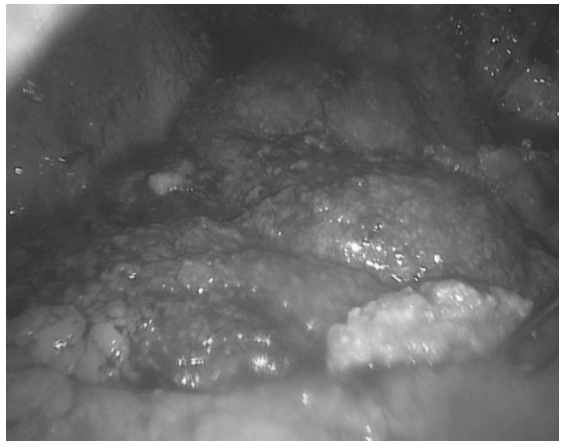


Figure 1. Pelvic tbc case 1

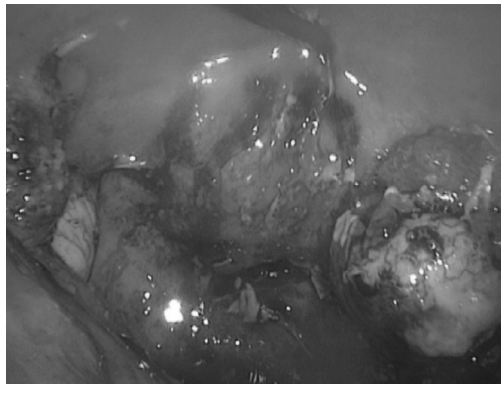


Figure 2. Pelvic tbc case 2

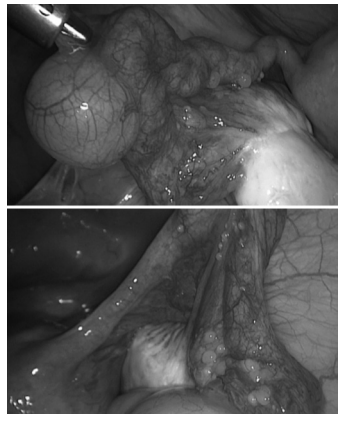


Figure 3. Pelvic tbc case 3

[OP-211]

Management of two non-communicating rudimentary horn pregnancies within the same day in a tertiary hospital

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Two different non-communicating rudimentary horn pregnancies, that carries a risk of catastrophic uterine rupture of 50%, managed on the same day in our clinic are discussed. The incidence range is reported as 1/76.000-1/140.000 pregnancies. In recent years, the advance of prenatal ultrasound assesment has contributed to detect rudimentary horn pregnancy earlier especially in patients without v. Thus the incidence of maternal morbidity and mortality is reduced. Both of the events which presented were 20-year-old asymptomatic primigravida. First of them was evaluated as ectopic pregnancy of 10 weeks and left ovarian dermoid cyst. The laparoscopic observation revealed a right non-communicating rudimentary horn gestation which attached with a fibrous band to the unicornuate uterus. There was also 10 cm left ovarian dermoid cyst. The other case was hospitalized as a nine weeks of intrauterine pregnancy with bicornuate uterine anomaly within the same day. The findings of the ultrasound evaluated by radiologist revealed a right-sided uterus 8 cm long with a hyperechoic endometrium 9 mm thick. On the left a viable fetal crown-rump lenght corresponding to nine weeks having a thick 1 cm wall. The diagnostic laparoscopy revealed a left non-communicating rudimentary horn gestation which was connected with a fibrous band to the unicornuate uterus. The rudimentary horns were not linked to the sacrouterine ligaments. There were no intraperitoneal ectopic kidneys in the cases. The fibrotic bands, ipsilateral utero-ovarian ligaments and round ligaments were coagulated with bipolar coagulation; cut and excised leaving out the rudimentary horn and also ipsilateral fallopian tube. Then homeostasis was performed. The rudimentary horns and fallopian tubes were placed in a sterile glove, incised and suctioned, and pulled out through the slightly enlarged right incision. The management was successfully completed via laparoscopically. Rudimentary horn pregnancy (RHP) is a rare clinical entity associated with serious consequences. The risk of rupture of the gravid horn, especially at the 10th or 15th gestational week, is a major concern. Non-communicating RHP takes place via transperitoneal sperm migration. The main diagnostic methods are ultrasonography and MRI. The accurate ultrasonographic evaluation especially in patients without symptoms is essential for differential diagnosis. It is important to distinguish between intrauterine pregnancy, which is associated with the bicornuate uterus. The laparotomy was the preferred choise for surgery because of the masive size but the laparotomic approach in management is gradually being replaced by laparoscopic methods. The absence of cervix and communication to the uterus makes the procedure easier. It is mandatory to remove the ipsilateral fallopian tube for preventing tubal pregnancy in the future. Also the renal evaluation should be taken into consideration.

Keywords: Non-communicating rudimentary horn pregnancies, management, laparoscopically



Figure 1. Right non communicating rudimentary horn gestation *Ultrasound image



Figure 2. Left non communicating rudimentary horn geststion *Left non communicating rudimentary horn geststion ultrasound image

[OP-212]

Demonstration of combined iv high dose vitamin C and dienogest activity in endometriosis patients

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Endometriosis is a health issue that is seen in 1 out of 10 women. A precise treatment has not been found yet and big budgets are parted for research around the world. In our research, we have used high dose of vitamin C; which is used in the postoperative period and with cancer patients who undergo chemotherapy in Germany, due to its anti inflammatory effect, together with medical endometriosis treatments. It is known that chronic inflammatory mechanisms play a role in the pathogenesis of endometriosis and accompanying diseases (such as asthma, fibromyalgia, rheumatoid arthritis) are involved in these mechanisms. Mechanism of action of vitamin C is stabilization of ROA (radical oxygen agent) and free radical elimination by its antioxidative effect. Also it is also effective on immune system, neurosensory system, blood supply and revascularization. Learned pain in endometriosis is reduced and

the placement of pain sensation is prevented by the regeneration of the border cells. Inflammatory cytokin production is also decreased by its antihistaminic effect and less reactive metabolites originate. Dienogest is also an anti inflammatory drug while supporting hormonal regulations. The combination of dienogest and high dose of vitamin C depresses the progression of the disease, and has a great impact on survey due to degradation of the inflammatory environment and active working anti inflammatory mechanisms. All our 21 endometriosis patients in this study were diagnosed with laparoscopy. Seven of the patients had history of surgery while 4 of them were on oral contraceptives. Mean time of diagnosis were 2.3 years. Nine patients had unilateral, 3 patients had bilateral endometriomas. Two patients had infiltrating nodules. We have excluded patients with history of urinary stone (especially oxalate stones), cardiac or vascular diseases, smokers and with severe varicose. Patients were treated with high dose of vitamin C (500 cc isotonic and 7.5 gr ascorbic acid) once in 15 days together with dienogest treatment for 6 months. The diameter of endometriomas decreased 2.4 cms and VAS score of our patients decreased from 6 to 2. Also their dysmenorrhea, dyspareunia and fibromyalgia complaints also deescelated. EQ-5D-3L Quality of Life Questionnaire scores increased from 45 to 80. Two patients' irritable bowel syndrome symptoms and 2 patients' active asthma attacks decreased. Side effects of dienogest, especially mood swings, were less seen. There was no side effect of high dose of vitamin C seen in any of the patients. As a result, both agent improved each others effects when used together and diminished chronic inflammatory processes in the body while improving the hormonal impairments. Since pain in endometriosis has been proved to be a learned process; signs of long term pain are inhibited by neuromodulation and regeneration, detention or resolution of the trigger points due to chronic inflammation in muscles and joints, anti inflammatory and angiogenic effects of combined therapy on endometrioma extent. There hasn't been a difference in deep infiltrating nodule sizes. This combined treatment modality can be used to increase patients' life quality and medical treatments' effects.

Keywords: Dienogest, endometriosis, inflammatory, pelvic pain, vitamin C

[OP-213]

Use of vacum asisted closure in massive perineal hematoma

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To demonstrate the success of vacum asisted closure (VAC) technique on opened episiotomy or hematoma areas. Puerperal genital hematomas are obstetrical emergencies which are generated after deliveries with or without episiotomy and they are also rare complications. In this article, we offered the healing period of a patient with massive hematoma at mediolateral episiotomy area by VAC technique after hematoma drainage. The patient had referred to our clinic from another health instutition after hematoma drainage at episiotomy area, but the hematoma was consisted again when the patient came to our hospital. We operated the patient with about 20 centimeters depth rectovaginal hematoma immediately. After drainage and haemorrhage control, the incision line sutured and hemostasis performed. But at postop 7th day, the sutures of incision opened. After wound debridements and antibiotic threatment, we decided to try VAC technique because of excess wound depth and slow recovery period of the tissue at postop 10th day. We applied VAC treatment for 10 days to the patient and vac was changed with new closure materials once per three days until the end of the treatment. At 10th day of VAC technique, all the incision line was closed but only three millimeters of a perineal incision defect was present. It was sutured with 3/0 vicryl and patient was discharged from our hospital with full recovery (Figure 1, 2, 3). In this report; we discussed that vac treatment is a safe technique for wound incision defect repairments and it helps granulatuon tissue growth, drainage of wound enfection materials, decreasing of incision defect dimensions. But more studies are needed involving a large number of patients for evidencing vac technique is safe and successfull.

Keywords: Vacum asisted closure, pregnancy, delivery



Figure 1. Vaginally applied VAC



Figure 2. Appearance of vulva after VAC



Figure 3. Completely cured vulva

[OP-214]

Recurrent triplet partial hydatidiform mole: A report of a patient with four consecutive molar pregnancies

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Hydatidiform mole (HM) is an aberrant human pregnancy characterized by atypical hyperplastic trophoblasts and hydropic villi. It occurs once in every 600-1000 pregnancies in Western countries but at higher frequencies in Latin America, Africa, the Middle East, and the Far East. Prior HM predisposes to another molar pregnancy. The risk for repeated molar pregnancy after the first mole is about 1 to 1.5 percent (approximately 10 to 15 times the risk for the general population). The recurrence rate after two molar pregnancies has been reported to range from 11 to 25 percent. Patients with recurrent molar pregnancies can have biparental molar rather than typical androgenetic disease, and is typically familial. Genetic studies in such families showed that the related genes are at chromosome 19q13.3-13.4, and subsequent analysis noted NLRP7 mutations in this region. The function of the normal protein and the mechanism by which mutations are associated with imprinting abnormalities and gestational trophoblastic disease are unknown. Data showing clustering of mutations in the leucine-rich region of NLRP7 suggest that this region is crucial for normal function. Some androgenetic diploid complete moles and possibly even triploid partial mole might also carry NLRP7 mutation. Here, we report the case of a patient with four consecutive partial HMs without any normal pregnancy. A 35 year-old woman with gravidity 4, parity 0, was referred to our hospital with a diagnosis of a triplet partial mole in August 2017. Transvaginal ultrasound is performed. Three separated gestational sacs were detected. In one of the sacs a gestational age of 7 weeks and 1 day embryo with positive fetal cardiac activity was observed. In all sacs central heterogeneous mass with numerous discrete anechoic spaces so called “snowstorm or swiss cheese pattern” were seen. She had four consecutive molar pregnancies in 2011, 2012, 2014 and 2017. All four molar pregnancies were evacuated by suction curettage and the patient was followed by serial beta-human chorionic gonadotropin levels. All four moles were histologically confirmed as partial moles. None of these four molar events need additional treatment after evacuation. Karyotype analysis of the patient and her husband was normal. Detailed genetic tests for NLRP7 mutation were recommended to the patient.

Keywords: Hydatidiform mole, partial, recurrent

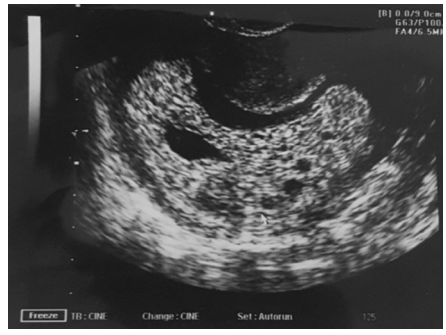


Figure 1. Central heterogeneous mass with numerous discrete anechoic spaces



Figure 2. Yolc sac (Arrow)

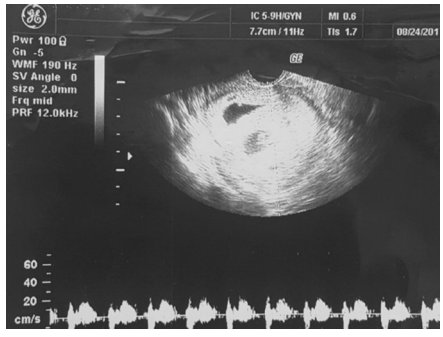


Figure 3. Fetal cardiac activity

[OP-215]

The effect of early treatment in heterotopic pregnancy on results

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Objective: Heterotopic pregnancy is a rare condition where intrauterin and extrauterin pregnancies coexist. As a result of the developments in assisted reproductive technology (ART) in recent years, there is a rise in the incidance of heterotopic pregnancies. In this study, the results of intrauterin pregnancies that were diagnosed with heterotopic pregnancy and treated in our clinic were evaluated.

Material and Methods: The study involves 4 patients who consulted our clinic between 2014 and 2018 and diagnosed with tubal heterotopic pregnancy. Two groups were formed as spontaneous cycle pregnancies (2) and IVF-ET pregnancies (2).

Results: Average age in spontaneous cycle pregnancies was 20 while in IVF group it was 34. At the time of diagnosis, average pregnancy week was 10w2d in spontaneous pregnancy group and 8w3d in IVF group. While the ectopic focus was intact in both patients in IVF group, in both patients of spontaneous pregnancy group it was ruptured and there was intrabdominal bleeding. Surgical treatment was applied to all patients in both groups (laparoscopic salpengectomy). Intrauterin pregnancies in IVF group ended up with alive births, however in spontaneous pregnancy group, one case ended up with spontaneous abortion at the time of diagnosis and the other case there was intrauterin subcorionic hematoma at the time of diagnosis and on the 3rd day after surgery it ended up with spontaneous abortus. Both patients were needed perioperative blood transfusion.

Conclusion: Even if intrauterine pregnancy is detected in all pregnancies, especially patients who are pregnant with ART, careful pelvic examination should be performed in the direction of heterotopic pregnancy. Early diagnosis is known to be important in terms of reducing maternal mortality and morbidity. The study shows early diagnosis and treatment plays an active role in the continuation of intrauterin pregnancy. The rupture of the focus of ectopic pregnancy may cause failure in intrauterin pregnancy either in relation with hemorogy or unknown mechanisms in abortion. Therefore, early diagnosis and treatment is very important in reducing embryo loss and fetal mortality.

Keywords: Heterotopic, pregnancy, treatment