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[OP-001]

Neutrophil lymphocyte ratio, platelet lymphocyte ratio and mean platelet volume; which one is more predictive in the diagnosis of pelvic inflammatory disease?

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Objective: In the present study, we aimed to assess and compare the utility of complete blood count (CBC) parameters and C-reactive protein (CRP) in the diagnosis of pelvic inflammatory disease (PID).

Material and Methods: Sixty-six patients diagnosed with PID, and 200 healthy control subjects were included in this case-control study. The groups were compared in terms of demographic properties such as age, parity, body mass index (BMI), hemoglobin value, neutrophil count, platelet count, neutrophil/lymphocyte ratio (NLR), platelet/lymphocyte ratio (PLR), mean platelet volume (MPV) and CRP.

Results: The groups were similar in terms of age, parity, BMI, hemoglobin and platelet count values ($p>0.05$). Neutrophil counts, CRP values, NLR and PLR were significantly higher and the MPV values were significantly lower in the study group ($p<0.05$) (Table 1). The parameter with highest sensitivity and specificity was NLR, which had similar diagnostic sensitivity and specificity as CRP (Table 2).

Conclusions: While the most commonly used laboratory tests for the diagnosis of PID are WBC, neutrophil and CRP, NLR should be considered as an even more sensitive marker. It was concluded that NLR could be used in addition to other CBC parameters for the diagnosis of PID.

Keywords: Mean platelet volume, Neutrophil Lymphocyte ratio, Platelet lymphocyte ratio, Pelvic inflammatory disease, C-reactive protein

Table 1. Comparison of study and control groups in terms of demographic and blood values.

Parameters	Study group (n=66) Mean± SD	Control group (n=200) Mean± SD	p value
Age (years)	29.65±4.23	28.18±5.55	0.97
Parity	3.92±1.39	2.97±2.23	0.083
BMI° (kg/m^2)	22.18±2.36	23.63±3.11	0.345
Hemoglobin (gr/dl)	11.98±1.58	12.25±1.07	0.762
Platelet	314.90±116.67	272.57±72.13	0.069
Neutrophil	10.88±5.23	4.83±1.69	0.002
CRP	18.56±8.16	3.89±2.45	0.001
NLR[1]	6.28±5.12	2.13±0.83	0.001
PLR[2]	172.305±84.17	121.27±40.20	0.002
MPV[3]	7.47±1.94	8.49±1.44	0.025

°BMI: Body mass index, [1]NLR: Neutrophil/lymphocyte ratio, [2]PLR: Platelet/lymphocyte ratio, [3]MPV: Mean platelet volume

Table 2. The diagnostic values of blood parameters in pelvic inflammatory disease

Parameter	Cut-off	AUC	Sensitivity	Specifity	PPV	NPV
CRP°	10.5	0.915	90	85	86.32	84.35
NLR[1]	2.674	0.915	87	82	84.33	76.00
PLR[2]	131.548	0.576	65	66	41.57	52.35
MPV[3]	6.75	0.323	60	19	34.38	15.59
Leukocyte	8.92	0.765	82	69	73.12	52.35
Neutrophil	6.15	0.890	78	68	60.44	54.59
Lymphocyte	1.75	0.359	63	14	37.38	11.02
Platelet	277.000	0.587	64	57	38.89	47.05

°CRP: C-reactive protein, [1]NLR: Neutrophil/lymphocyte ratio, [2]PLR: Platelet/lymphocyte ratio, [3]MPV: Mean platelet volume

[OP-002]

Retrospective analysis of 114 cases treated cause dermoid cyst at the hospital of Zeynep Kamil

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Objective: The Objective of this study is to evaluate the clinical findings, tumor marker levels, surgical treatment approaches and final pathological results of the dermoid cyst subjects treated at our hospital.

Material and Methods: Our study is planned as retrospective. 114 subjects from our hospitals electronic log system were involved in our study. Along with the demographic data's, pre-operative clinical findings, tumor sizes, ultrasonographic characteristics, tumor marker results, surgical treatment method (laparotomy-laparoscopy), administered surgical treatment procedure (cystectomy, oopherectomy, salpingo-oopherectomy, total abdominal hysterectomy-salpingo-oopherectomy) and pathology results were noted from the patient files.

Results: Average ages of our patients were determined as 33.59±12.79 years (age between 11 and 70). Abdominal pain which determined in 32 patients (28.07%) was determined as the most common complaint during apply to the hospital. It has been seen that 70 patients (38.59%) were determined as incidental. Average cyst size was determined as 47.70±48.49 cm^2 during the ultrasonographicexamination. Ca 125 level was determined as higher than normal in only 12 (10.52%) of the patients and Ca 19-9 level was determined as higher than normal in only 29 (25.43%) of patients included in the study. According to the

final pathology results, the most common result was dermoid cyst which was determined in 103 (90.40%) patients. Other histopathologicalresults were immature teratoma, squamous cell carcinomaand serous carcinoma.

Conclusion: Ovarian dermoid cysts are usually benign neoplasms and rarely show malign transformations. Tumor markers are not fairly enough to make discriminations. However especially in older patients treatment should be done cautiously due to the raised risk of malignity.

Keywords: Dermoid cyst, ultrasonography, age, histopathologic content

[OP-004]

Very rare etiology of hemoperitoneum: ovarian fibroma

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Introduction: Ovarian fibromas are benign tumors classified as sex cord-stromal tumors. They constitute about 2% of all ovarian tumors. They are generally observed in middle-aged women (Maccio et al., 2014). They may be asymptomatic without any typical clinical signs. However, they may result in a clinical picture, namely Meigs' syndrome, which includes ovarian fibroma, free ascites in the abdominal cavity, and hydrothorax in 1-3% of the cases(Meigs, 1954). An increase in the level of CA 125 rarely accompanies this clinical picture; in addition, hemoperitoneum is a very rare situation. We present herein a case of ovarian fibroma, in which the preoperative benign or malignant nature could not be differentiated, and presented with hemoperitoneum.

Case: A 32-year-old patient who was diagnosed with uterine myoma by MRI was referred from another center with anemia and abdominal pain. Upon physical examination, the patient had guarding and rebound tenderness. The ultrasound examination revealed a hyperechoic fluid in the abdomen and a solid mass with a diameter of approximately 15 cm in the right adnexal region. Preoperatively, the patient's CA 125 level and hemoglobin level were 63 U/ml and 6 mg/dl, respectively. Two units of erythrocyte suspensions were transfused preoperatively. Post-transfusion hemoglobin was 9 mg/dl. The patient was taken in to the operating room with the frozen section ready. The abdomen was entered through a lower midline incision below the umbilicus. On exploration, diffuse hemoperitoneum was detected in the abdomen. A solid mobile mass with a diameter of approximately 15 cm was found in the right adnexial region originating from the ovary with regular borders and there was no bleeding on surface of the mass. Other intra-abdominal organs were observed to be natural. A right salpingo-oophorectomy was performed. Intraoperative frozen section examination revealed fibroma. After the final intra-abdominal checks, the operation was terminated. The patient's postoperative course was uneventful and the patient was discharged with recommendations. The section of the solid tissue was red with a smooth external surface, with a diameter of 14 cm, hemorrhagic in most fields, and in grayish white in patchy areas. Microscopically, edematous and hemorrhagic tumor tissue was observed extensively.

Discussion: Ovarian fibromas are found in 2–5% of surgically removed ovarian tumors. However, Meigs' syndrome is observed in approximately 1% of cases and ascites are present in 10–15% of those with ovarian fibromas(Young and Scully, 1988).

Meigs syndrome generally presents with serous transudative effusion (Meigs 1954). Rarely, hemorrhagic fluid associated with benign ovarian

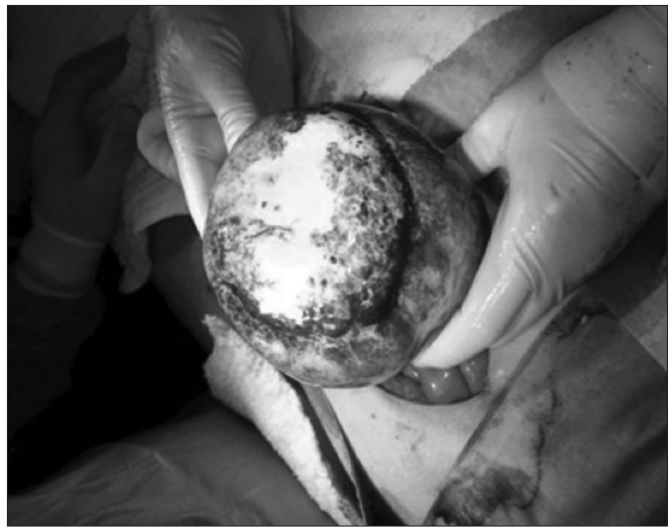

Figure 1. Intraoperative appearance of solid mobile mass in the right adnexal region originating from the ovary with regular borders.

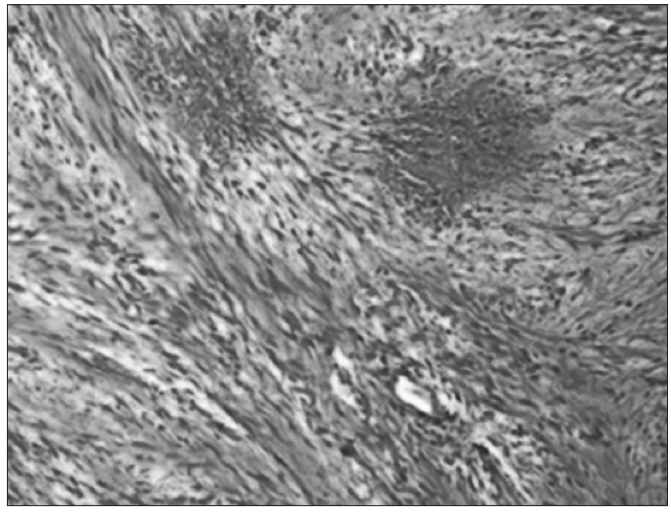

Figure 2. Bundle forming spindle cells and collagen fibers together with hemorrhagic foci were observed (H&E x100).

tumors has been observed (Agaba et al. 2007). Agaba et al. reported one case that was associated with Meigs' syndrome and hemorrhagic pleural effusion (Agaba et al., 2007). In addition to benign gynecological pathologies such as ectopic pregnancy, ovarian cyst rupture, uterine fibromas, and malignant pathologies such as ovarian tumors should also be considered in the differential diagnosis of hemoperitoneum (Peng et al., 2015, Togami et al., 2015, Bastu et al., 2013). In conclusion, fibromas may present with hemoperitoneum, solid adnexal mass, increased levels of CA 125, and symptoms of acute abdomen.

Keywords: hemoperitoneum, Ovarian fibrom, Abdominal pain

[OP-005]

Evaluation of risk factors for the recurrence of ovarian endometriomas

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Objective: To evaluate the risk factors for the recurrence of ovarian endometrioma after laparoscopic cystectomy.

Material and Methods: Reproductive aged patients who underwent laparoscopic ovarian endometriotic cystectomy and with histopathologically confirmed diagnosis of ovarian endometrioma were evaluated retrospectively. Histopathologic specimens were reevaluated and hystopthologic characteristics of ovarian endometriotic cysts (thickness of cyst wall, thickness of fibrosis (ToF), thickness of ovarian tissue, the number of follicles per cyst, the depth of penetration (DoP) of endometrial tissue into the cyst wall) were determined. Along the determined histopathologic findings, demographic characteristics (age at surgery, number of pregnancies), clinical symptoms (dysmenorrhea, infertility), intraoperative findings (revised American Society for Reproductive Medicine stage and total score), imaging features (bilaterality, cyst diameter), and biochemical parameters (Ca125, Ca19.9, Ca15.3) were evaluated as possible risk factors for the recurrence of endometrioma. The variables with $p<0.2$ in univariate analysis were introduced into regression analysis to determine the risk factors for recurrence.

Results: There were statistically significant differences in age group (<= 35 years and > 35 years), the ToF and DoP between patients with recurrence and those with no recurrence. In Cox regression analysis, age <= 35 years and DoP were significant risk factors for presence of recurrence. DoP, ToF, preoperative cyst diameters in ultrasonographic examination were reversely correlated with recurrence interval. In multivariate regression analysis, the DoP was found the only significant risk factor for the recurrence interval. 1200 μm of DoP was found as the optimum cut off value according to Youden index criteria in ROC curve analyse. The sensitivity (62.9%), specificity (75%) were obtained at the cut off value of 1200 μm for DoP.

Conclusion: Histopathological features of ovarian endometriotic cyst may have important roles on predicting the recurrence of the endometrioma. Predicting the recurrence risk of particular patient is very important in future management of the disease. Knowing the recurrence risk of an endometrioma will help in deciding the optimal treatment modalities for each individual patient. High risk patients should be offered appropriate treatments according to the clinical status without delay and low risk patients should be protected from overtreatment.

Keywords: Endometrioma, histopathologic parameters, recurrence, recurrence interval

[OP-006]

BRCA1 and BRCA2 sequence variations detected with next generation sequencing in patients with premature ovarian insufficiency

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Objective: Although the association between BRCA1 and BRCA2 gene mutations and breast and ovarian cancer is known, there is not yet sufficient data in premature ovarian insufficiency (POI). However, several studies reported that there might be a relationship between POI and BRCA1 and BRCA2 gene mutation. We aimed to investigate the role of BRCA1 and BRCA2 gene mutations in the etiology of POI in Turkish population.

Material and Methods: The cohort was classified in two groups, study group consisted of 56 individuals diagnosed as premature ovarian insufficiency (younger than 40 years of age, antral follicle count <3-5, FSH levels > 12IU/l) and control group included 45 fertile individuals. A total of 101 individuals were analyzed by next generation sequencing to detect BRCA1 and BRCA2 gene mutations.

Conclusion: We detected 4 new variations (p.T1246N and p.R1835Q in BRCA1 and p.I3312V, IVS-7T>A in BRCA2) which have not been reported before. We did not find an association between the BRCA1 and BRCA2 gene mutations and premature ovarian insufficiency. However larger and functional studies are needed to clarify the association.

Keywords: BRCA1, BRCA2, infertility, next generation sequencing, Premature ovarian insufficiency

Table 1. Variants in the BRCA1 and BRCA2 genes in the study and control groups

Exon	cDNA	Protein	SIFT (0-1)	Variation class (UMD)	Polyphen–HumDiv	Polyphen–HumVar	GVGD	Domain	Control group % (n:45)/ Study group % (n:56)
BRCA1									
7	c.536A>G	p.Y179C	0	1	-	0.85	Class45	-	2 (1)/0 (0)
10	c.1067A>G	p.Q356R	-	1	-	-	Class0	BRCTassoc	16 (7)/14 (8)
10	c.2077G>A	p.D693N	-	1	-	-	Class0	EIN3	20 (9)/9 (5)
10	c.2612C>T	p.P871L	-	1	-	-	Class0	EIN3	67 (30)/55 (31)
10	c.3113A>G	p.E1038G	-	1	-	-	Class0	-	60 (27)/54 (30)
10	c.3119G>A	p.S1040N	-	1	0.01	-	Class0	-	2 (1)/2 (1)
10	c.3541G>A	p.V1181I	0.26	1	-	0.01	Class0	-	0 (0)/2 (1)
10	c.3548A>G	p.K1183R	-	1	-	-	Class0	-	62 (27)/54 (30)
10	c.3737C>A	p.T1246N	0	Not reported	-	-	Class0	-	0 (0)/2 (1)
10	c.1456T>C	p.F486L	0.22	-	-	-		BRCTassoc	2 (1)/0 (0)
10	c.1648A>C	p.N550H	0.01	-	0.99	0.88		-	2 (1)/0 (0)
12	c.4342A>G	p.S1448G	0.01	3	0.33	-	Class0	-	0 (0)/2 (1)
14	c.4535G>T	p.S1512I	0.01	1	-	0.13	Class0	-	2 (1)/0 (0)
15	c.4837A<G	p.S1613G	-	1	-	-	Class0	-	64 (29)/54 (30)
15	c.4883T>C	p.M1628T	-	1	-	-	Class0	-	2 (1)/0 (0)
15	c.4956G>A	p.M1652I	-	1	-	-	Class0	BRCT	4 (2)/2 (1)
23	c.5504G>A	p.R1835Q	0.02	Not reported	BRCT domain	-	Class0	BRCT	2 (1)/0 (0)
BRCA2									
3	IVS2-7T>A	-	-	Not reported	-	-	-	-	2 (1)/0 (0)
10	c.865A>C	p.N289H	-	1	-	-	Class0	-	9 (4)/13 (7)
10	c.1114A>C	p.N372H	-	1	-	-	-	-	47 (19)/45 (26)
10	c.1368G>C	p.E456D	0.04	-	0.85	0.32	Class0	-	2 (1)/0 (0)
11	c.2971A>G	p.N991D	-	1	-	-	Class0	-	9 (4)/11 (6)
11	c.5744C>T	p.T1915M	-	1	-	-	Class0	-	4 (2)/4 (2)
11	c.4258G>T	p.D1420Y	0	1	0.03	0.01	-	-	4 (2)/2 (1)
11	c.6853A>G	p.I2285V	0.12	2	0.61	0.14	Class25	-	0 (0)/2 (1)
11	c.6100C>T	p.R2034C	-	1	-	-	Class0	-	0 (0)/2 (1)
11	c.3318C>G	p.S1106R	0	-	1	1	-	-	2 (1)/0 (0)
11	c.2919G>A	p.S973S	-	-	-	-	-	-	2 (1)/0 (0)
18	c.8187G>T	p.K2729N	0.07	3	1	0.93	Class35	BRCA2DBD_OB1	2 (1)/2 (1)
22	c.8851G>A	p.A2951T	-	1	-	-	Class55	BRCA2DBD_OB2	2 (1)/4 (2)
26	c.9581C>A	p.C3194Q	0.12	3	1	0.95	-	-	0 (0)/2 (1)
27	c.9934A>G	p.I3312V	0.88	Not reported	0	0	Class0	-	0 (0)/2 (1)
27	c.10234A>G	p.I3412V	-	1	-	-	Class0	-	0 (0)/2 (1)
27	c.9976A>T	p.K3326X	-	1	-	-	-	-	4 (2)/2 (1)

Classification UMD database: 1 - Neutral, 2 - likely neutral or contradictory neutral/UV, 3 - UV, 4 - likely causal or contradictory deleterious/UV, 5 - Causal. Neutral variant: non-causal variant in terms of disease risk, present in less than 1% of the general population, designated as "less likely" for Align-GVGD, "benign" for PolyPhen, and "not clinically important" for BIC. Polymorphism: neutral variant present in more than 1% of the general population, Predicted neutral: considerable evidence for neutrality but no final GGC decision. UV: unclassified variant, designated as "unknown" for BIC. Predicted causal: considerable evidence for pathogenicity but no final GGC decision, Causal mutation: causal or pathogenic mutation in terms of disease risk, designated as "most likely" for Align-GVGD, "damaging" for PolyPhen, "pathogenic" for UMD-Predictor, and "clinically important" for BIC
PolyPhen results for each variant were classified as benign (score ≤0.5), possibly damaging (0.5< score <2), probably damaging (score >2), and unknown.
C/P: P: Patient group; C: Control group, patient numbers with * indicates homozygous variant, patient number without * indicates heterozygote variant.
SIFT score: Ranges from 0 to 1. The amino acid substitution is predicted damaging is the score is <=0.05, and tolerated if the score is >0.05.
GVGD: Align GVGD scores amino acid substitutions on a 7-scale scoring system, from C0 to C65. C0: Neutral, C15-25 intermediate, as changes to protein structure or function are uncertain, and C35 scores or higher are considered as likely deleterious.
UMD: Universal Mutation Database; SIFT: Sorting Tolerant From Intolerant; Grantham Variation Grantham Deviation : XXX; BIC: Breast Cancer Information Core; BRCT: BRCA C-terminus

[OP-007]

Trends over years in approaches of hysterectomy for benign indications in a tertiary referral center

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Objective: Hysterectomy is the most common operation performed by th gynecologists. Hysterectomy is done for many indications using any of a variety of techniques and approaches which are abdominal, vaginal, laparoscopic or robotic. In this operation, uterin corpus and cervix is removed with or without bilateral ovaries and tubes depending on the patient's age and a variety of other factors. Abdominal hysterectomy involves removal of the uterus through an incision in the lower abdomen. Vaginal hysterectomy is defined as removal of the uterus via the vagina. Laparoscopic hysterectomy involves "keyhole surgery" through small incisions over the abdomen and uterus may be removed through vagina or one of the small incisions after morcellation. In robotic surgery, the operation is performed by a robot steered by the human. Uterine leiomyoma is the most common indication for hysterectomy. Endometriosis, cancer, abnormal bleeding, pelvic inflammatory disease, uterine prolapse are encountered as other indications for this operation. The aim of this study is to determine the change in approaches of hysterectomy over years in a tertiary referral center.

Material and Method: We examined the number of hysterectomy in the Department of Obstetrics and Gynecology at Kanuni Sultan Suleyman Training and Research Hospital between January 2010 and January 2016. The approaches preferred were recorded for each operation.

Results: Laparoscopic hysterectomy had not been performed between January 2010 and 2012. Each year, percentage of abdominal hysterectomy decreased steadily from 96.2% to 54.2%. vaginal hysterectomy initially increased, then the ratio remained nearly constant approximately at 15%. The important finding was that minimally invasive surgery increased in time suitable with trends all over the world (Table 1).

Results: Abdominal hysterectomy continues to be the most common approach, but vaginal hysterectomy has been associated with fewer complications, shorter hospital stay, more rapid recovery, lower overall costs. But there are many limitations for vaginal hysterectomy especially in patients with concurrent pelvic disease, large uterus or in patients with absence of prolapse. Because of these reasons, recently laparoscopic and robotic hysterectomy became more feasible and have been applied more frequently. Laparoscopic hysterectomy has many advantages such as less postoperative pain, shorter hospitalization, faster return to work, less blood loss, fewer postoperative complications, beter cosmesis and reduced hospital cost. Kroft et al defined the rate of minimally invasive hysterectomy for benign indications as 36%. Another study found that the percent of laparoscopic hysterectomy increased from 11% to 29%. Approach depends on surgeon's and patient's choice, surgeon's experience and skill, indication for operation and patient's characteristics. All benefits and hazards about approach should be discussed with patient and final decision should be taken. Laparoscopic and robotic hysterectomy continues to be a valuable alternative for abdominal hysterectomy especially in obese patients.

Conclusion: As in our hospital, with learning curve to perform advanced laparoscopic procedures and technological developments, laparoscopic hysterectomy an deven assisted robotic hysterectomy has been preferred by the surgeon and the patient.

Keywords: hysterectomy, laparoscopy, vaginal

[OP-008]

Neutrophil / lymphocyte ratio as new-inflammatory biomarkers Primary ovarian insufficiency (POI) patients

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Objective: Primary ovarian insufficiency (POI) is a disease without completely elucidated etiology. Genetic, immunological and environmental factors are thought to play a role for POI etiology. According to recent studies, Neutrophil / lymphocyte ratio (NLR) was been found to be a good indicator of inflammatory conditions. We investigated the relationship between the NLR ratio for POI patients.

Introduction: Primary ovarian insufficiency (POI) is defined as the development of hypergonadotropic hypogonadism before the age of 40 years. The condition was previously referred to as "premature menopause" and "premature ovarian failure." POI is characterized by a change in menstrual function (oligomenorrhea and/or amenorrhea), elevated serum gonadotropin and low serum estradiol concentrations, and estrogen deficiency symptoms. There are several known causes of ovarian failure, including chromosomal defects like Turner syndrome and fragile X syndrome premutation carriers, exposure to radiation and certain drugs, and autoimmune disease. Unfortunately, the etiology remains unknown in approximately 75 to 90 percent of cases. In terms of an individual's risk of developing POI, it is important to develop a strategic management plan and the investigation at an early stage.

In recent years, there has been renewed interest in hematological parameters such as neutrophil to lymphocyte ratio (NLR) and are designated as predictors of endothelial dysfunction and inflammation. We aimed to investigate relationship between the NLR for POI patients.

Material and Methods: Forty five patients with POI which had ongoing treatment in gynecology outpatient follow-up of Sakarya University Research and Education Hospital were enrolled to study. The patient's hematological parameters were studied retrospectively. For control group hematological parameters of 50 women admitted to the gynecology clinic for still other reasons with menstrual and hormonal profile were normal, no chronic diseases.

Results: The average age of patients diagnosed with POI was 37, and control group was 35. POI group average neutrophil count was 3, 5 (103mL), and for control group was 4,5 (103mL). The average number of lymphocytes in the control group was found 2,4 (103mL), and for POF group was 2,3 (103mL). The NLR rate of 1.5±0.5 was found for POF group, and 1,8 ± 1 for the control group. There were no statistically significant differenc¬es between the groups for NLR.

Conclusion: NLR represents a combination of two markers where neutrophils represent the active nonspecific inflammatory mediator

initiating the first line of defense, whereas lymphocytes represent the regulatory or protective component of inflammation. Autoimmunity was first postulated as a cause of POI when it was noted that some women with adrenal insufficiency also had ovarian insufficiency. Young women with spontaneous POI are also at increased risk of autoimmune hypothyroidism and asymptomatic autoimmune adrenal insufficiency. Inflammation disorders are one of the components of this situation. In our study there was no significant difference for NLR between POF and control groups. This result may be a result of the low number of patients for this study. We believe that need of a study with a greater number of patients with all etiologic factors consideration.

Keywords: Primary ovarian insufficiency, Neutrophil/lymphocyte ratio, inflammatory biomarker

[OP-009]

[OP-010]

An unruptured second trimester live tubal ectopic pregnancy which was misdiagnosed as abdominal pregnancy

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Tubal ectopic pregnancies mostly become symptomatic in the first trimester. A small number of tubal pregnancies have advanced beyond this. In the present case a live, unruptured advanced tubal pregnancy at 15 weeks is described (figure 1). Tubal pregnancy located in the ampullary part of tuba uterina created a diagnostic dilemma with abdominal ectopic pregnancy. Because of the high incidence of life-threatening risks, immediate laparotomy is applied. Upon laparotomy unruptured left tubal ectopic pregnancy was confirmed as a mass of 12x4x4 cm. Left tuba was subsequently removed. The patient had an unremarkable post-operative course and was discharged home two days after the surgery. Pathologist reported that ectopic pregnancy was originated from the ampulla of tuba uterina (figure 2).

Keywords: Ectopic pregnancy, second trimester, tuba

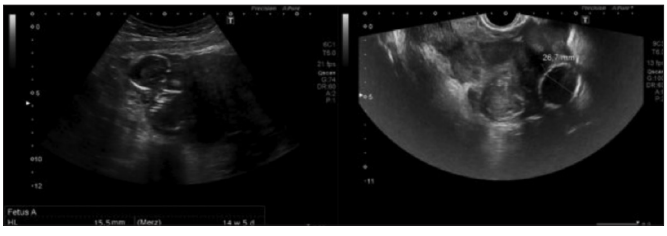

Figure 1. Trans-abdominal and trans-vaginal ultrasound revealed an average gestational age of 14 weeks and 5 days live fetus according to biparietal diameter (BPD) of 26,7 mm and humerus length of 15,5 mm on the left adnexial zone

Figure 2. Pathologist reported that ectopic pregnancy was originated from the ampulla of tuba

[OP-013]

Influence of the type of hysterectomy on sexual and psychological condition

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Objective: To investigate whether there were any differences in the quality of life, sexual function, and self-esteem in patients who have undergone total laparoscopic hysterectomy(TLH) and total abdominal hysterectomy(TAH).

Material and Methods: All premenopausal patients who underwent TLH or TAH due to benign uterine disorders were enrolled. The sexual function and quality of life status were assessed preoperatively and 6 months postoperatively using three standardized validated questionnaires: the Arizona Sexual Experiences Scale(ASEX), the Symptom Checklist-90–Revised(SCL-90–R), and the Rosenberg Self-Esteem Scale(RSES), respectively.

Results: Preoperative ASEX, SCL-90–R, and RSES scores were not different among the hysterectomy subgroups. The postoperative SCL-90–R scores were also not different among the hysterectomy

Table 1. Distrubiton of theASEX score according to the groups

FemaleArizona Sexual ExperienceScale	Group 1 (TAH)	Group 2 (TLH)	P value
Sexual Drive			
Preoperative	3.3± 1.2	3.6±1.2	0.185
Postperative	2.7±1.0	1.7±0.8	0.000
Preop-PostopDifference	0.7±1.1	1.9±1.4	0.000
Difference p	0.000	0.001	
Arousal			
Preoperative	3.4±1.3	3.8±0.9	0.138
Postperative	2.7±1.1	2.0±0.8	0.002
Preop-PostopDifference	0.7±1.1	1.8±1.2	0.000
Difference p	0.000	0.001	
VaginalLubrication			
Preoperative	3.1±1.0	3.4±0.8	0.180
Postperative	2.5±0.8	2.3±0.9	0.258
Preop-PostopDifference	0.1±1.0	1.0±1.1	0.051
Difference p	0.000	0.002	
Ability to Reach Orgasm			
Preoperative	3.4±1.1	3.4±1.2	0.796
Postoperative	2.7±1.1	2.8±1.1	0.846
Preop-PostopDifference	0.8±1.5	0.7±1.2	0.895
Difference p	0.002	0.0091	
Satisfaction with Orgasm Score			
Preoperative	2.9±1.2	3.0±1.2	0.679
Postoperative	2.4±1.2	2.0±1.0	0.105
Preop-PostopDifference	0.6±1.1	1.0±1.4	0.064
Difference p	0.000	0.004	
Total Score			
Preoperative	16.1±4.3	17.2±3.7	0.135
Postoperative	12.9±3.7	10.8±2.1	0.008
Preop-PostopDifference	3.2±3.9	6.4±3.3	0.000
Difference p	0.000	0.000	

Data are expressed as mean ± S.D.P achivedfrom Mann-WhitneyorStudent t test and difference P achivedfromPaired t test orWilcoxontest according to distribution of data

subgroups. The postoperative RSES scores were significantly lower($p<0.05$) than the preoperative scores for all procedures(indicating improved self-esteem) but did not differ among the groups. The postoperative ASEX scores were significantly decreased($p <0.01$) as compared with the preoperative scores. When the average scores of each item of the ASEX score were compared in both the groups, significant differences were observed in the sexual drive and arousal in the laparoscopy group ($p <0.01$).

Conclusion: Women undergoing TLH for benign uterine disease may have better outcomes related to certain sexual function parameters than women undergoing TAH

Keywords: Total Abdominal Hysterectomy; Total Laparoscopic Hysterectomy, ASEX score; sexual function, Self-esteem, Quality of life

[OP-014]

Circulating SCUBE1 levels are elevated in lean glucose-tolerant women with polycystic ovary syndrome

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Objective: Polycystic ovary syndrome (PCOS) is thought to represent an early manifestation of metabolic syndrome, which is associated with cardiovascular disease. Signal peptide-CUB (complement C1r/C1s, Uegf, and Bmp1)-EGF(epidermal growth factor) domain-containing protein 1 (SCUBE1) is a platelet activation marker that plays important roles in vascular biology and has been closely linked to cardiovascular events. In the present study, we investigated SCUBE1 levels in lean glucose-tolerant women with PCOS and assessed the possible association between SCUBE1 levels and hormonal and metabolic features of women with PCOS.

Material and Methods: The study population consisted of 90 lean (body mass index [BMI] < 25 kg/m2) women diagnosed with PCOS using the Rotterdam criteria and 100 age- and BMI-matched healthy controls with no clinical or biochemical feature of hyperandrogenism. Glucose tolerance was evaluated in all subjects before recruitment using the 2-h 75 g oral glucose tolerance test, and only those exhibiting normal glucose tolerance were enrolled. Complete blood count, hormonal and metabolic parameters, and serum SCUBE1 levels were evaluated.

Results: Circulating SCUBE1 levels were significantly higher in women with PCOS than in controls (5.9 ± 3.9 vs. 4.2 ± 1.4 ng/mL, $p = 0.022$). No association between SCUBE1 level and clinical or biochemical parameters was found in the control or PCOS group.

Conclusion: Increased SCUBE1 levels in lean glucose-tolerant women with PCOS reflect increased platelet activation, which may augment the risk of cardiovascular disease later in life

Keywords: platelet activation, polycystic ovary syndrome, SCUBE1

[OP-015]

Lidocaine for pain control during IUD insertion

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Objective: This study was conducted to examine the effects of topical lidocaine spray, lidocaine cream, and lidocaine injection on pain perception during intrauterine device (IUD) insertion.

Study design: Multiparous women at reproductive age were grouped into control, lidocaine cream, lidocaine spray, and lidocaine injection groups. Ten cm visual analog scale was used in all patients to evaluate pain perception at three stages of IUD insertion procedure: Basal:

After analgesic application; Tenaculum: After tenaculum application; Insertion: After IUD insertion.

Results: Two hundred patients were enrolled in the study. Baseline characteristics were similar between groups (p>0,05). Pain score for tenaculum were similar in the groups (p=0,071). Basal pain scores were significantly higher in the lidocaine injection group (p<0,001). Intrauterine device insertion pain scores were lower in the lidocaine spray and injection groups (p<0,001).

Conclusion: Lidocaine spray and lidocaine injection lowers pain during IUD insertion. Lidocaine spray application is a good option for reducing the pain felt during insertion of IUD. Spray application is both easy and rapid. Nurses, midwives and health technicians who perform IUD insertion can also use it easily. Paracervical lidocaine injection can also reduce pain during IUD insertion, but the injection itself is also painful. Therefore, we don't see this option as a plausible method for reducing pain during IUD insertion.

Keywords: Intrauterine device, lidocaine, pain

[OP-016]

The impact of insulin resistance on clinical, hormonal and metabolic parameters in lean women with polycystic ovary syndrome

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Objective: This retrospective study was performed to assess IR (insulin resistance) in lean women with PCOS (polycystic ovary syndrome) and to determine its association with clinical, hormonal and metabolic parameters.

Material and Methods: Retrospective analysis of one hundred consecutive lean (body mass index <25 kg/m2) PCOS subjects, aged 18-35 years, who attended to Marmara University Hospital was performed. The diagnosis of PCOS was made according to the 2003-Rotterdam criteria. Hirsutism was evaluated using the modified FGS (Ferriman–Gallwey score). Insulin resistance, defined by HOMA-IR (homeostasis model assessment IR index) was calculated using the following equation: HOMA-IR = fasting insulin (μU/L) x fasting glucose (mmol/L)/22.5. One hundred lean PCOS subjects were divided into two groups according to HOMA-IR values (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. FAI (free androgen index) was calculated by the formula, FAI = (TT (total testosterone) nmol/L) / SHBG (sex hormone-binding globulin) nmol/L) x 100. All data were analyzed using Statistical package for the social sciences (SPSS) 16.0 for Windows. Student's t-test or Mann-Whitney U-test was used for comparisons of the mean between the two groups, as appropriate. The results were considered significant if P values were < 0.05; highly significant if P <0.01. Correlation analyses were performed between HOMA-IR and clinical, hormonal and metabolic variables using Pearson's and Spearman's methods in women with PCOS.

Results: One hundred lean PCOS subjects were enrolled in the study, of which 47 were insulin resistant and 53 were not. Table I shows the clinical, hormonal and metabolic characteristics of the two groups

Table 1. Clinical, hormonal and metabolic characteristics of groups

	IR – (n=53)	IR+ (n=47)	p
Age (y)	24.24±3.57	24.87±2.48	0.317
WHR	0.74±0.04	0.78±0.07	<0.001**
BMI(kg/m^2)	22.28±1.69	22.72±2.03	0.232
Systolic blood pressure (mmHg)	112.20±9.89	115.65±10.01	0.087
Diastolic blood pressure (mmHg)	68.15±7.80	72.17±7.36	0.010*
LH (mIU/ mL)	7.71±3.57	8.67±3.46	0.174
FSH(mIU/ mL)	4.59±1.15	4.76±1.09	0.457
E2(pg/ dL)	47.03±12.48	50.03±10.63	0.201
HDL cholesterol (mg/ dL)	55.45±12.52	55.00±10.92	0.849
LDL cholesterol (mg/ dL)	89.99±20.34	93.57±27.00	0.453
Triglyceride (mg/ dL)	92.07±24.14	97.95±32.37	0.302
Total cholesterol(mg/ dL)	166.81±25.18	173.38±26.26	0.205
FGS	5.73±3.24	8.97±5.05	<.001**
SHBG (nmol/L)	29.63±16.11	28.88±15.23	0.812
FAI	5.97±7.05	6.39±3.97	0.724
Total T (nmol/L)	1.32±1.13	1.54±0.96	0.299
DHEAS (μg/dl)	178.26±95.61	163.27±72.69	0.384

Note: Values are expressed as mean±SD. FGS= Ferriman-Gallwey score HOMA-IR= homeostasis model assessment- insulin resistance FAI=Free androgen index * P<.05. ** P<.01.

Table 2. Correlation between insulin resistance and clinical, hormonal and metabolic parameters in nonobese women with polycystic ovary syndrome

	HOMA-IR r
Age (y)	0.195
WHR	0.500**
BMI (kg/m^2)	0.143
Systolic blood pressure (mmHg)	0.265**
Diastolic blood pressure (mmHg)	0.273**
LH (mIU/ mL)	0.109
FSH(mIU/ mL)	-0.061
E2(pg/ dL)	0.218*
HDL cholesterol (mg/ dL)	-0.123
LDL cholesterol (mg/ dL)	0.033
Triglyceride (mg/ dL)	0.093
Total cholesterol(mg/ dL)	0.065
FGS	0.456**
SHBG (nmol/L)	0.011
FAI	0.151
TT (nmol/L)	0.291**
DHEAS (μg/dl)	-0.051

** p< 0.01.* p< 0.05. FGS= Ferriman-Gallwey score HOMA-IR= homeostasis model assessment- insulin resistance FAI=Free androgen index

(IR+ and IR-). There was no statistically significant differences between the groups in terms of age, BMI (body mass index), systolic blood pressure, LH (luteinizing hormone), FSH (follicle-stimulating hormone), estradiol, HDL (high-density lipoprotein) cholesterol, LDL (low-density lipoprotein) cholesterol, TG (triglyceride), total cholesterol, SHBG, FAI, TT and DHEAS (dehydroepiandrosterone sulfate) levels. Comparison of group means showed significantly higher values for WHR (waist to hip ratio), diastolic blood pressure and FGS in the IR+ group.

Correlation analyses were performed between HOMA-IR and the other parameters in lean women with PCOS (Table II). HOMA-IR values were found to be positively correlated with WHR ($r=0.500$, $p<0.01$), systolic blood pressure ($r=0.265$, $p<0.01$),diastolic blood pressure ($r=0.273$, $p<0.01$), estradiol levels ($r=0.218$, $p<0.05$), FGS ($r=0.456$, $p<0.01$) and TT levels ($r=0.291$, $p<0.01$).

Conclusions: In conclusion, while evaluating PCOS subjects, insulin resistant group should be seperated as a unique, for optimizing treatment modalities and reducing long term health risks. The importance of IR in lean subjects should be kept in mind and IR should be evaluated not only in obese PCOS subjects but also in the lean ones.

Keywords: Polycystic ovary syndrome, lean, insulin resistance

[OP-017]

The effects of IL-1A and IL-6 genes polymorphisms on gene expressions, hormonal and biochemical parameters in polycystic ovary syndrome

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Objective: Polycystic ovary syndrome (PCOS) is a multifactorial disease characterized by chronic inflammation. We aimed to investigate an association between IL-1A and IL-6 genes polymorphisms and both hormonal/biochemical parameters and levels of IL-1A and IL-6.

Material and Methods: A total of 103 women (76 patients, 27 controls) diagnosed with PCOS according to ESHRE/ASRM criteria were investigated. The patients were divided to two groups as obese and non-obese. IL-1A and IL-6 genes polymorphisms, as well as hormonal/biochemical parameters and levels of IL-1A and IL-6 were analyzed in the same groups.

Results: Serum IL-1A and IL-6 levels were found to increase both in obese and non-obese groups. However there was not an association between IL-1A level and IL-1A polymorphism. A relationship was detected between H score, FSH, LH, total testosterone, HDL-C and TG levels and CG+GG genotypes of IL-6. Furthermore an association was found between IL-6 levels and CC genotype of IL-6 in the obese PCOS patients.

Conclusion: The abnormalities in hormonal/biochemical parameters detected in Turkish PCOS patients may be related with IL-6 gene polymorphism rather than IL-1A. IL-6 protein which increases owing to IL-6 polymorphism in obese patients may be the cause of the clinical and laboratory data seen in PCOS.

Keywords: Expression, Gene Polymorphisms, Interleukins, Polycystic ovary syndrome

[OP-018]

Are the endometrial polyps related with chronic disease, and additional gynecological pathologies?

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Objective: To evaluate the relationship of endometrial polip (EP) with DM, HT, obesity and other gynecological pathologies.

Material and Methods: A total of 138 patients with the pathology of EP between 2012-2014 years were studied. Age, gravida, parity, live births, endometrial thickness, longest dimension of polyps in the pathological examination, and additional uterine pathologies of the patients were recorded. Patients were divided into groups according to body mass index (BMI) and having chronic diseases or not (HT, DM or both).

Results: The mean age and BMI of patients were 48.53 ± 10.04 years and 28.3 ± 6.1 respectively. HT + DM comorbidity was more frequent in overwight patients than HT alone or DM alone. The incidence rates of endometritis, cervical polyps, adenomyosis were significantly higher in overweight group ($p<0.001$, $p = 0.017$, and $p = 0.014$, respectively).). The BMI and polyp size of the patients in HT+DM group were statistically significantly higher when compared with the patients in the other groups ($p <0.001$, $p <0.001$ respectively).). Cervicitis was seen at high rates in the disease-free group ($p = 0.026$). Endometritis, cervical polyps, and adenomyosis were more frequent in the group with HT + DM comorbidity ($p <0.001$, $p <0.001$, and $p <0.001$, respectively).

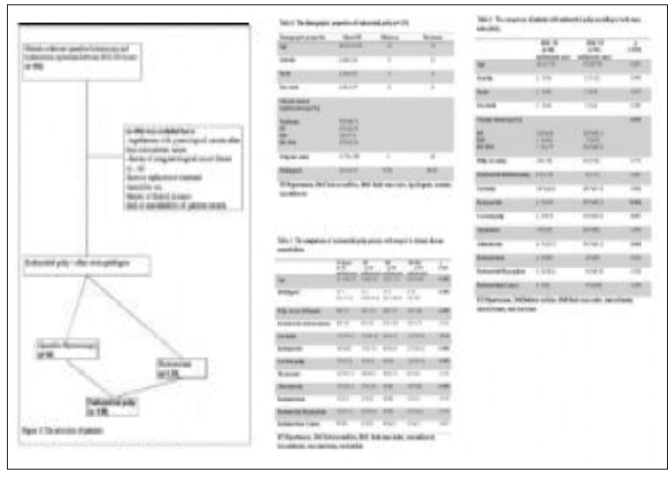

Figure 1.

Conclusion: EPs can be frequently seen in patients with overweight, DM, or HT. HT+DM comorbidity in overweight EP patients, in their later years may lead to high EP development in larger dimensions endometritis, cervical polyps, and adenomyosis.

Keywords: Endometrial polyps; diabetes mellitus; hypertension; obesity

[OP-020]

Challenging differential diagnosis of a primary stromal mass, causing ovarian torsion in a postmenopausal woman

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Primary ovarian leimyomas are rare benign tumours of the ovary. They are mainly asymptomatic and discovered accidentally during imaging, operations for uterine leiomyoma, autopsies or other pathologies. We present a large torsionated primary ovarian leiomyoma in a 62 -year-old postmenapausal patient whose symptoms began after the ovary was torsionated. The patient had nonspecific symptoms such as sudden onset of severe abdominal pain, nausea, vomiting and diarrhea. So that it was misdiagnosed as acute gastroenteritis. After the treatment the symptoms were reduced but intermittant abdominal pain was continued. In gynecologial examination abdominal mass ranging from uterine fundus to umbilical level was revealed. In ultrasound examination approximately 8x6x13 cm lobulated, well-circumscribed mass with isoechoic myometrium and free fluid in the pelvic area were observed, the uterus was atrophic,ovaries couldn't seen (subserosal leiomyoma?, tumor? were suspected). In MRI examination subserosal fibroid was considered (figure 1). In the laboratory, tumor markers were elevated CA-125: 214.2, CA-19-9: 59.81, CA-15-3: 26.05. Thus, malignant tumour or leiomyosarcoma were suspected in the patient. An explorative laparotomy was performed by vertical midline incision and we observed about 15x10 cm right ovarian mass that was 3-4 times torsioned with right adnex, well-circumscribed and necrotic. The mass was removed with right adnex without detorsioned, then total abdominal hysterectomy and left salphingooferectomy with omental biopsy and peritoneal washings were performed. In pathological examination, the differential diagnosis from fibroma with immunohistochemical examination could not be performed due to edema and necrosis but it was interpreted as leimyoma (figure 2). To our knowlege this is the third case of ovarian leiomyomas confused with malignancy and the first case of torsionated primary ovarian leiomyoma in postmenopausal period in the literature. The ovarian leiomyomas are rarely seen in postmenopausal patients so that it may not be suspected in differential diagnosis of pelvic masses. They should also be considered in the case of large pelvic masses isoechoic with myometrium, elevated tumour markers and intrapelvic ascites, in order to avoid unnecessary radical surgery.

Keywords: Leiomyoma, ovary, torsion, mimicking malignancy

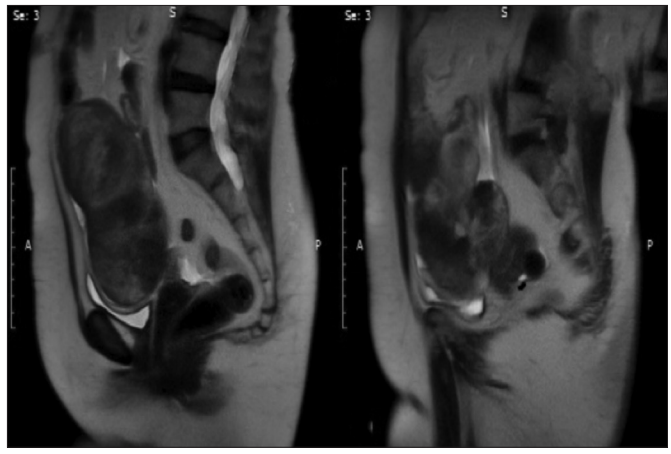

Figure 1. T2-weighted imaging in MRI, a: the mass was smooth, lobulated, 14x8 cm in size, demonstrated mixed-intensity signal on T2-weighted imaging and not hold contrast material, b: the uterus was atrophic, the pelvic mass was seen in the midline pelvic area and compressed on the anterior of uterus.

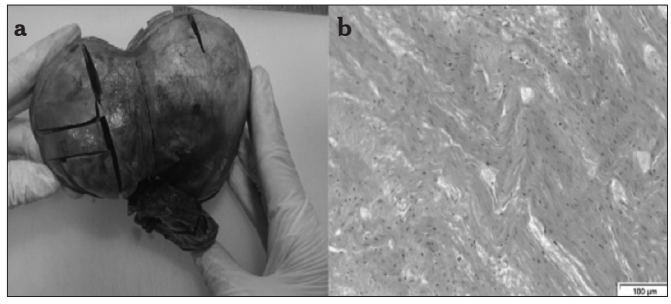

Figure 2. a, b. a: The macroscopic appearance smooth surface nodular lesion with the dimensions of 14 x 10 x 9 cm, consisting right fallopian tube, the right ovary could not be distinguished, cross sections of the solid lesion had commonly bleeding red -brown appearance, b: The microscopic results were diffuse coagulation necrosis and bleeding areas at cross sections with hyalinization of vessel walls. Cells of the lesion suffered necrosis and occurs from silhouette smooth muscle cells (H&E,200X).

[OP-021]

Does postmenopausal osteoporosis have an impact on thiol-disulphide homeostasis?

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Objective: To evaluate impact of postmenopausal osteoporosis on thiol-disulphide homeostasis.

Material and Methods: A total of 75 participants were divided into two groups: Group 1 (n = 40) composed of healthy postmenopausal women and group 2 (n=35) was composed of women with postmenopausal osteoporosis. Clinical findings and thiol-disulphide homeostasis were compared in two groups.

Results: Disulphide/native thiol ratio was 8.6 % ± 3.6 in the group 1 and 12.7 % ± 8.4 in the group 2 (p=0.04). Disulphide/native thiol percent ratio was significantly higher in the group 2 after adjustment for the years since menopause and age ($p < 0.05$). Native thiol/total thiol percent ratio was 85.6 % ± 4.8 in the group 1 and 73.8 % ± 24.9 in the group 2 (p=0.01). Native thiol/total thiol percent ratio was significantly lower in the group 2 after adjustment for the years since menopause and age ($p < 0.05$).

Conclusion: Thiol-disulphide homeostasis shifted to disulphide side independent of age and years since menopause in postmenopausal osteoporosis.

Keywords: Disulphide, postmenopausal osteoporosis, thiol

[OP-022]

Evaluation of neutrofil-lymphocyte ratio, platelet-lymphocyte ratio, red cell distribution width-platelet ratio for the diagnosis of premature ovarian insufficiency

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Objective: It has been widely known that neutrophil to lymphocyte ratio(NLR), platelet to lymphocyte ratio(PLR) and red blood cell distribution width(RDW) to platelet ratio(RPR) reflect systemic inflammation. Current studies have failed to determine specific biomarkers of Premature ovarian failure(POF). We also have limited tools for the diagnosis of POF. Thus this study aims to evaluate whether inflammatory markers can be used as reliable markers for the diagnosis of POF and to determine if there is a relationship between these markers and FSH, Anti-Müllerian Hormone (AMH) levels.

Material and Methods: This study was a comparative study and carried out at Suleymaniye Maternity and Women's Disease Education and Research Hospital, In Vitro Fertilization clinic between January 2013 and February 2016. Written and electronic medical records were reviewed using searches for diagnoses with the terms of "premature ovarian failure", "premature ovarian insufficiency". 37 patients with POF(Group A) and 37 age-matched healthy females(Group B) were included. Patients younger than the age of 40 were diagnosed to have premature ovarian failure based on their menstrual history (at least a 4-month history of amenorrhea), gonadotropins levels (follicle stimulating hormone (FSH) levels>=40 mIU per milliliter) and sonographic examination (no or a few demonstrable follicles on transvaginal ultrasound) were included in this study.

Secondary causes of amenorrhea including pregnancy, polycystic ovarian syndrome, chronic medical illness (uncontrolled diabetes mellitus or celiac disease), hypothalamic amenorrhea, extreme exercise, poor caloric intake, hyperprolactinemia, hyperthyroidism, hypothalamic or pituitary lesions, women with histories of chemotherapy, pelvic surgery, radiation exposure or premature ovarian failure due to extensive ovarian surgery were excluded. Medical conditions that may interfere with complete blood count parameters including hematologic, cardiovascular, kidney-liver disease, asthma, arthritis, neoplastic disease such as androgen-secreting tumours, ovarian tumour, use of glucocorticoids, infectious, parasitic or autoimmune diseases were also excluded.

Complete blood counts, day-3 hormone profiles, AMH levels of all subjects were analysed. NLR, PLR and RPR were calculated for both the patients and the control group. In statistical anaylsis, SPSS 17.0 for windows package program was used. Independent Samples T-test, Mann-Whitney U test, Pearson's Correlation and receiver operating characteristic(ROC) curves was used. p value of <0.05 was considered statistically significant.

Results: We found that NLR showed statistically significant difference between the patients and the control group, but the other parameters not. There were also statistically significant correlations between NLR and neutrophile, lymphocyte, FSH and AMH. According to regression analysis results, FSH and AMH levels are individually not predictors of NLR. ROC curve analysis results showed that NLR has prediction value for POF (R2=0,668; p<0.05). For NLR cutoff at 1.53, sensitivity is 75.7% and specificity is 45.9%. For NLR cutoff at 1,33, sensitivity is 94.6% and specificity is 24.3%. For NLR cutoff at 2.43, sensitivity is 35.1% and specificity is 89.2%.

Conclusion: NLR has predictor value for the diagnosis of POF. Wider and multicenter studies are needed in this regard.

Keywords: inflammatory, marker, premature ovarian failure

[OP-025]

Clinical features and histopathologic outcomes of presumed benign adnexial masses in postmenopausal women

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Objective: The aim of the study was to estimate the histopathologic outcomes of postmenopausal adnexial masses which had been described as benign preoperatively.

Material and Methods: This retrospective study was conducted in our Gynaecology Clinic of Zekai Tahir Burak Hospital between January 2013-September 2015. A total of 119 women with postmenopausal adnexal masses, assumed as benign according to Risk of Malignancy Index- 2, were included. Age, duration of menopause, ultrasonographic characteristics, and serum CA-125 levels were recorded preoperatively. Final diagnosis was based on postoperative routine histopathologic examination.

Results: The mean age of patients was 55.4±6.71 years. There were 119 postmenopausal women operated for adnexal masses in our gynaecology clinic during this period. Histopathological examination revealed that 8,4 % of the adnexial masses were malign

or borderline tumors while 91,6% were benıgn. Of these, 47 were simple cyst, 21 fibroma, 13 hydrosalpenx, 11 dermoid cyst, 8 mucinous cystadenoma, 4 borderline ovarian tumor, 3 endometrioma, 3 tubo-ovarian abscess, 3 adenocarcinoma, 3 serous cyst adenofibroma, 1 clear cell carcinoma, 1 leydig cell tumor, 1 stromal tumor. There was no statistically significant difference between benign and malign petients regarding age and tumor size. The only statistically significant ultrasonographic parameter between two groups was the presence of solid area in the mass. Moreover, If the cut off point for serum Ca-125 was adjusted to 14.75 IU/ml according to ROC curve, a sensitivity value of 80% and a specificity value of 72% could be achieved. (AUC 0,89).

Conclusion: In the differentiation of benign and malign adnexial masses in postmenapousal women, the presence of a solid component based on ultrasonography and high Ca 125 values may be used as discriminative criteria. It seems there is no direct relation between size of adnexial mass and malignancy potential. In the light of our data, decreasing the cut off point of Ca 125 levels in the malignancy indexes of postmenopausal women can be helpful for increasing the sensitivity of preoperative evaluation tests without having a great impact on negative predictive values.

Keywords: Adnexial Mass, Transvaginal Ultrasonography, CA-125, Menopause, RMI

[OP-026]

Urologic complications of obstetrics and gynecological surgery

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Objective: Avoiding and managing urinary tract injuries during obstetric and gynecologic operations may lead to less frequent long term complications. In this study we retrospectively analyzed urological complications of our clinic since 2009.

Material and Methods: Forty-two patients with urological complications were found from January 2009 to February 2016.

Results: Forty-two patients (0.8%) with iatrogenic urinary tractus injury were found. Mean age of the patients were 46.5 (IQR:11.2), 26 (61.9%) of them undergone benign gynecologic surgery, 9(21.4%) gynecologic oncology surgery and 7 (16.7%) obstretrics surgery. Bladder injury was the most common urinary tract injury in both obstetric and gynecologic operation groups (0.03% &0.07%). Women with bladder injury in caesarean section were all have had a prior caesarean delivery. Two women with caesarean hysterectomy had plasenta accreata. Frequency of bladder injury is significantly higher in laparoscopic hysterectomy compared to open hysterectomy. No urinary injury was detected in robotic hysterectomy group although one of them was radical hysterectomy and three case with total hysterectomy plus sakrocolpopexia. Seven (63.6%) of 11 ureteral injuries and one bladder injury occured inpatients undergone radical hysterectomy. Three ureteric injury occured in hysterectomy and one in Burch operation. One patient was found with üretral injury occured in transobturator tape operation. Although 90% of bladder injuries diagnosed and repaired intraoperatively, 80% of iatrogenic ureteral injuries recognised postoperatively.

Conclusion: The most common urological travma after pelvic surgery is bladder injury. Previous caeseran delivery and placenta accreata are the most common risk factor for bladder injury during caesarean delivery. Laparoscopic hysterectomy, radical hysterectomy and open urogynecologic operations are leading cause of ureteric injuries.

Keywords: Gynecologic surgical procedures, iatrogenic injuries, urological complications

Table 1. Type of surgery performed in patients with urological complications

Type of surgery	Total number of operation	Bladder (n, %)	Ureter (n, %)	Uretra (n, %)
C&S	16599	4(0.024)	0	0
CS-hysterectomy	19	2 (6.4)		
Radical hysterectomy	62	1 (1.61)	7 (11.2)	0
Hysterectomy	3164	18(0.56)	4(0.09)	0
Abdominal	2953	10(3.38)	1(0.03)	0
Vaginal	21	0	1(4.76)	0
LS/robotic	181/9	8/0(4.4/0)	1(0.55/0)	0/0
Burch-open	1146	1(0.08)	1(0.08)	0
Burch-LS	14	2(14.2)	0	0
TOT	332	0	0	1 (0.30)
Tubal surgery	3630	2(0.055)	0	0
Total gynecology	33314	24(0.07)	11(0.033)	1(0.003)
Total group	49932	30(0.06)	11(0.022)	1(0.002)

[OP-027]

Serum anti-Müllerian hormone levels in euthyroid adolescent girls with Hashimoto's thyroiditis: relationship to antioxidant status

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Objective: Free radical-mediated oxidative stress has been implicated in the etiopathogenesis of Hashimoto's thyroiditis (HT), which is the most common thyroid disorder in adolescents. HT requires lifelong thyroid surveillance, particularly in women of childbearing age to avoid adverse effects on reproductive function. The aims of this study were to investigate serum concentrations of anti-Müllerian hormone (AMH), a marker of ovarian reserve, in euthyroid adolescent girls with newly diagnosed HT and explore the relationships between AMH levels and biomarkers of antioxidant status.

Study design: We recruited 57 non-obese (body mass index [BMI] Z-score < 2) adolescent girls with newly diagnosed HT and 50 age- and BMI-matched healthy controls for this case–control study. All participants were euthyroid. Hormonal and metabolic parameters, serum levels of AMH, and antioxidant status [paraoxonase (PON) and arylesterase (ARE) activities] were assessed.

Results: Serum AMH levels were significantly higher and serum PON and ARE activities were significantly lower in adolescents with HT than in the controls ($p < 0.001$ for all). No significant associations were detected between the AMH level and any of the clinical or biochemical parameters in the control group. Serum AMH levels were negatively correlated with PON ($r = -0.435$, $p = 0.001$) and ARE ($r = -0.422$, $p = 0.001$) activities in adolescents with HT.

Conclusion: The AMH level was inversely correlated with antioxidant enzyme activities in euthyroid adolescent girls with newly diagnosed HT.

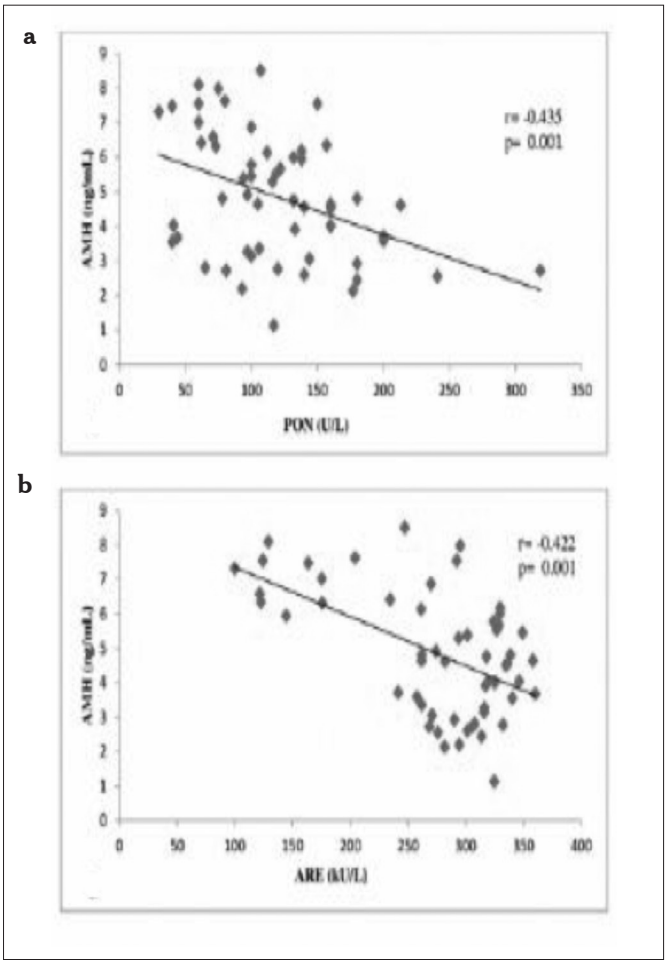

Figure 1. Negative correlation between serum AMH levels and (a) PON and (b) ARE activities in adolescents with HT

Keywords: Anti-Müllerian hormone, adolescent, antioxidant status, Hashimoto's thyroiditis, ovarian reserve

[OP-028]

Guess who pays the bill? Of course the most innocent

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Background: Millions of Syrian refugee people migrate to Turkey and other parts of Europe due to violation aganist their human rights.

Aim: This study was to descibe our experience with refugee Syrian women in an Education and Research Hospital located in Ankara, the capital city of Turkey.

Material and Methods: The electronic database of Etlik Zubeyde Hanim Education and Research Hospital was searched for the terms "Syrian Refugee" and "stateless refugees". The list of patients between January 1, 2015 and December 31, 2015 was analyzed for age groups, inpatient and outpatient visits, and distribution of patients among services.

Results: A total of 6438 Syrian refugee people were followed in the study period: 4492 patients in outpatient visits and 1946 patients were hospitalized. Among them, 1598 patients (24.8%) were at 0 – 1 years of age: 1390 babies (31%) in the outpatient visits and 208 babies (10.7%) were hospitalized. In the hospitalized adult patient group, the high risk pregnancies formed the majority with 524 patients.

Conclusion: Displacement of a population is hard for adults, but even harder for newborns and toddlers.

Keywords: Displaced populations, refugee, refugee children

[OP-031]

Cystatin C, a promising metabolic risk marker in women with polycystic ovary syndrome

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Objective: This study was performed to assess the impact of cystatin C on the metabolic components of PCOS (polycystic ovary syndrome).

Material and Methods: Retrospective analysis of a prospectively collected data of 75 PCOS subjects, who attended to Marmara University Hospital was performed. The diagnosis of PCOS was made according to the 2003-Rotterdam criteria. Insulin resistance, defined by HOMA-IR (homeostasis model assessment insulin resistance index), was calculated using the following equation: HOMA-IR = fasting insulin (μU/L) x fasting glucose (mmol/L)/22.5. The mean value of cystatin C (0.71 mg/L) for

Table 1. Clinical and metabolic characteristics of groups

	Group 1 Cystatin C >=0.71 mg/L n=34	Group 2 Cystatin C < 0.71 mg/L n=41	p
Age (y)	24.5±4.24	23.80±4.17	0.479
WHR	0.80±0.03	0.76±0.04	<.001b
BMI(kg/m^2)	25.62±2.37	24.40±2.46	0.033a
FSH(mIU/ mL)	5.17±1.25	5.50±1.46	0.306
LH (mIU/ mL)	9.74±5.15	10.52±4.94	0.506
E2(pg/ dL)	34.71±11.36	36.85±11.23	0.743
Systolic blood pressure (mmHg)	116.26±9.87	112.36±11.37	0.121
Diastolic blood pressure (mmHg)	68.82±7.77	67.60±6.97	0.479
HDL cholesterol (mg/ dL)	47.08±11.74	53.82±15.01	0.036a
LDL cholesterol (mg/ dL)	116.80±32.06	96.44±22.66	0.002b
Triglyceride (mg/ dL)	136. 97±49.40	89.55±28.61	<.001b
Total cholesterol(mg/ dL)	192.41±33.68	168.70±25.97	0.001b
BUN(mg/ dL)	10.14±2.90	9.96±1.86	0.171
Serum creatinine(mg/ dL)	0.72±0.17	0.71±0.16	0.909
Uric acid(mg/ dL)	4.13±0.59	4.33±0.55	0.410
HOMA-IR	2.40±1.18	2.48±1.20	0.773
Metabolic Syndrome	18 (53)	0(0)	<.001b

Note: Values are expressed as Mean±SD or N (%). HOMA-IR= homeostasis model assessment- insulin resistance a P<.05. b P<.01.

women in general population which is determined by nephelometric method was taken as the cutoff value. Seventy five PCOS subjects were divided into two groups according to the cystatin C cutoff value as group 1 (cystatin C >=0.71 mg/L) and group 2 (cystatin C <0.71 mg/L). Clinical and metabolic parameters were compared between the two groups. All data were analyzed using SPSS (Statistical Package for Social Sciences) for Windows, Version 22 (IBM Corp, Armonk, NY). The results were considered significant if P values were <0.05; highly significant if p<0.01. Continuous variables are presented as mean±SD and categorical variables as numbers and percentages. For the analysis of qualitative data, chi-square test was used. For the analysis of quantitative data, Student's t-test or Mann-Whitney U-test was used, as appropriate.

Results: Seventy five women with PCOS were enrolled in the study, of which 18 subjects (24% of all PCOS subjects) were diagnosed with metabolic syndrome. Metabolic syndrome was found in 18 (53%) of the subjects in group 1 and was found in none of the subjects in group 2 (p<.001). There was no statistically significant differences between the groups in terms of age, FSH (follicle-stimulating hormone), LH (luteinizing hormone), estradiol, systolic and diastolic blood pressure, BUN (blood urea nitrogen), serum creatinine, uric acid and HOMA-IR (Table 1). Comparison of group means showed significantly higher values for WHR (waist to hip ratio), BMI (body mass index), LDL (low-density lipoprotein) cholesterol, TG (triglyceride), total cholesterol and lower values for HDL (high-density lipoprotein) cholesterol in group 1 (cystatin C >=0.71 mg/L) compared to group 2 (cystatin C <0.71 mg/L) (Table 1).

Conclusion: Since PCOS is a multifaceted syndrome with long term metabolic and cardiovascular risks, while evaluating women with PCOS, cystatin C may be a practical and promising metabolic risk marker. Considering the importance of early preventive strategies, cystatin C may be helpful for the determination of target subjects at high risk; however, larger studies are needed for the routine use of this new marker in clinical practice.

Keywords: Cystatin C, metabolic syndrome, polycystic ovary syndrome

[OP-032]

Manual seperation with and without betamethasone and estrogen creams in the treatment of prepubertal labial adhesions

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Objective: To evaluate the efficacy of manual seperation (MS) alone and MS plus topical estrogen (TE) or topical betamethasone (TB) for the treatment of prepubertal labial adhesions (LA).

Material and Methods: In this retrospective study, we accessed the records of patients presenting to Obstetrics and Gynecology clinic in a tertiary care center from July 2013 to March 2016 and treated with manual seperation (MS) alone or combined with medical therapy for LA. A course of treatment consisted application of cream twice a day for 4 weeks. The patients whose parents were not willing to the conservative treatment as a first line option underwent manual separation ± topical treatments. All patients underwent MS at the office after application of lidocain sprey. Patients in one of the groups received no topical treatments after MS. Other two groups were prescribed either a course of betamethasone cream (TB) or estrogen cream (TE) after MS and par-

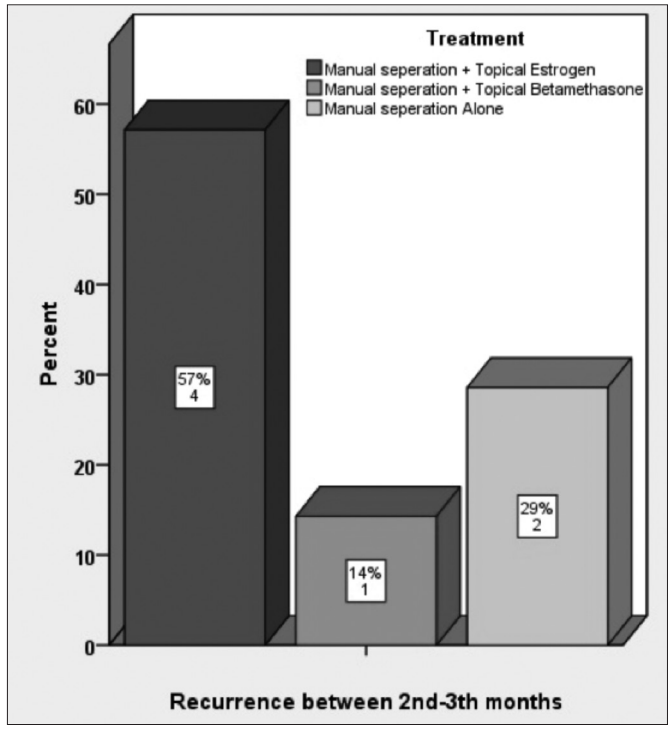

Figure 1. Recurrence of labial adhesions between 2nd and 3rd months of treatment

Table 1. Distributions of variables according to treatments

Treatments		Manual seperation + Topical Estrogen n(%)	Manual seperation + Topical Betamethasone n(%)	Manual seperation Alone n(%)	p
Symptom	Dysuria	2(20)	3(30)	2(20)	0.889
	Urinary infections	5(50)	2(20)	4(40)	
	Vulvovaginitis	2(20)	3(30)	3(30)	
	Post-void Dripping	1(10)	2(20)	1(10)	
Recurrence at 1st month	No	10(100)	10(100)	8(80)	0.117
	Yes	0(0)	0(0)	2(20)	
Recurrence between 2nd-3rd months	No	6(60)	9(90)	8(80)	0.271
	Yes	4(40)	1(10)	2(20)	
Side effects	Erythema	1(10)	1(10)	0(0)	-
	Pruritus	0(0)	1(10)	0(0)	
	Skin atrophy	0(0)	0(0)	0(0)	
	Vesiculation	0(0)	0(0)	0(0)	
	Breast budding	0(0)	0(0)	0(0)	
	Vaginal bleeding	0(0)	0(0)	0(0)	
	None	9(90)	8(80)	10(100)	

ents were instructed to apply it to the labia minora twice daily for one month. Four weeks and 12 weeks after treatment initiation patients were reassessed. Having no residual adhesions was considered successful. Data were collected on the incidence of related symptoms, side effects of medical therapies, rate of successful separation, rate of recurrence. Data are shown as mean, standard deviation or frequency, percentage. Independent sample t test or one way analysis of variance were used to compare the continuous normal data between/among groups. For post-hoc comparisons between the pair-wise groups, the Tukey HSD test was used. Chi-Square test was used to compare the categorical data between/among groups. A p-value <0.05 was considered significant.

Results: Mean age of the patients was 29.53 months. The most common presenting symptom was urinary tract infections (36.7%) followed by vulvovaginitis (26.7%), dysuria (23.3) and post-void dripping (13.3%) (Table 1). None of the patients in topical agent prophylaxis groups had recurrence at the end of 4 weeks of application. However, 2 patients who were treated with MS alone had recurrence of labial adhesions at the first month visit and treated again with MS alone and followed. At the 3rd month reevaluation, 2 patients in MS group, 1 patient in MS+TB group and 4 patients in MS+TE group had recurrence of LA (Figure 1). No serious side effects were seen; eythema in 1 patient in each of the topical prophylaxis groups and pruritus in 1 patient in TB group, both of which were tolerated well, unnecessiating cessation of therapy.

Conclusion: While conventional post-treatment follow up involves continued application of estrogen cream with improved hygiene, application of topical 0.05 % betamethasone valerate cream produced less recurrence following manual separation and seems promising in the treatment of LA.

Keywords: Labial adhesion, manual separation, estrogen, betamethasone

[OP-034]

Bilateral paratubal cysts in an adolescent

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Introduction: Paratubal or paraovarian cysts represent approximately 10% of all adnexal masses (1). They rarely become symptomatic in adolescents (2). Preoperative diagnosis is often difficult and diagnosis is usually made at surgery. We report a rare presentation of an acute abdomen in an adolescent with bilateral paratubal cysts.

Case Presentation: A twenty year old virgin girl presented to the emergency department with two days history of abdominal pain and nausea. This was the first episode of such pain. She had regular menstruations at intervals of 26–28 days, lasted for 6–7 days, associated with mild dysmenorrhea.

On presentation her lower abdomen was full with tenderness in the right and left iliac fossa and hypogastrium. Preoperative investigations, including the renal function tests and the serologic oncological markers were normal. Inflammatory markers showed normal C-Reactive Protein (1,56 mg/ml) and a total white cell count of 6 x 103/uL (range 4- 10.3). Suprapubic ultrasound showed a normal uterus; right ovary presented a mass of 6 cm in diameter in right ovarian region and left ovary showed normal parenchyma with a mass of 4 cm in diameter. The woman underwent laparoscopy; abdominal cavity and uterus were normal, the right and left ovaries presented two masses suspicious for dermoid cysts, respectively (figure 1,2). The cysts were excised, preserving the fallopian tubes. The patient had an uncomplicated postoperative recovery and was discharged two day from laparoscopy. Definitive pathologic examination confirmed the diagnosis of bilateral paramesonephric cysts.

Discussion: In the paratubal and paraovarian regions the majority of the cysts are of Mullerian origin and can account for up to 76% of all the cysts (2). They are more common in adults and only occur rarely

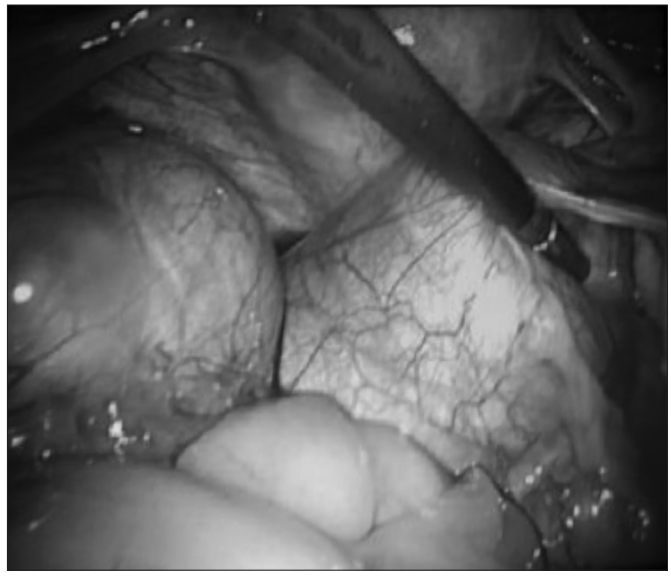

Figure 1. Bilateral paratubal cysts in adolescent figure 1

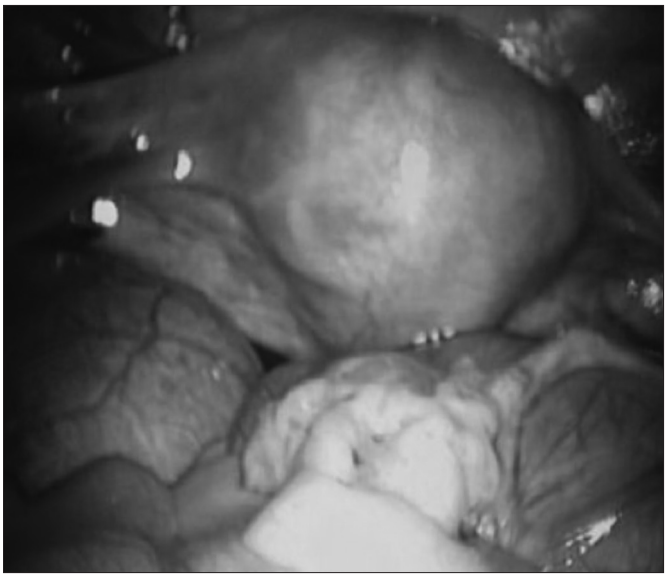

Figure 2. Bilateral paratubal cysts in adolescent figure 2

in adolescents (4%) (2). A neoplastic potential has been identified (3) with the incidence varying from 1.69% to 2 %. Hence excision should be seriously considered (3).

Accurate preoperative diagnosis can be difficult. Ultrasound has been used as the first line for diagnosis. MRI may give more detailed three dimensional information but essentially features are the same as an ultrasound. Laparoscopy has been used successfully in adolescent practice to deal with large or complicated paraovarian cysts (4). The indication for open surgery is malignancy or suspicion of malignancy, dense adhesions or large cysts (4). In summary we report a very rare case of bilateral paratubal cysts which were identified and excised during laparoscopy for an acute abdomen in an adolescent girl.

Keywords: Adolescent, laparoscopy, paratubal cyst

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[OP-035]

Carotid artery intima media thickness (CIMT) is statistically significantly increased in young PCOS patients - reflection of an increased cardiovascular disease risk at the very beginning of life

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Objective: The United Nations defines 'youth' as those between the ages of 15 and 24 years. A recent meta-analysis showed a two-fold relative risk of coronary heart disease in PCOS(polycystic ovary syndrome). Studies found that women with PCOS had more severe subclinical atherosclerosis as measured by CAC (coronary calcification scores), CIMT (carotid artery intima-media thickness) and endothelial dysfunction compared with controls. The objective of this study is to determine if CIMT along with other cardiovascular risk factors as dyslipidemia and hyperhomocysteinemia differs in young PCOS subjects when compared to those of healthy youth.

Material and Methods: A retrospective analysis of a prospectively collected data is performed where 57 women younger than 24 years of age, diagnosed to have PCOS according to the 2003 Rotterdam criteria and 51 age-matched healthy controls were enrolled. The presence and the extend of hirsutism were assessed by FGS (Ferriman-Gallwey score). Serum FSH (follicle-stimulating hormone), LH (luteinizing hormone), E2 (estradiol), DHEAS (dehydroepiandrosterone-sulfate), total T (testosterone), insulin, fasting plasma glucose, triglyceride, homocysteine and total, HDL (high-density lipoprotein) and LDL (low-density lipoprotein) cholesterols were measured and CIMT of both carotid arteries was measured by the same experienced radiologist who was blinded to the clinical and biochemical data. FAI (free androgen index) and insulin resistance as defined by HOMA-IR (homeostasis model assessment insulin resistance index) were calculated. Statistical analysis was performed by using SPSS (Statistical Packages for the Social Sciences) 18.0 (SPSS Inc., Chicago, IL, USA). Data are presented as mean and standard deviation, comparisons in quantitative parameters between the PCOS and control groups were performed by unpaired t-test and a p value of <0.05 was considered to be significant.

Results: There was no statistically significant difference between the groups when age, BMI, HOMA-IR, total cholesterol and triglyceride levels were compared. However, homocysteine and LDL levels were statistically significantly higher and HDL level was lower in the PCOS group. Moreover, right, left and mean CIMT values were all higher in the PCOS group

Table 1. Baseline characteristics and hormone profiles of subjects

	PCOS (n=57)	Control (n=51)	p value
Age (y)	21.07±2.39	21.47±1.54	0.31
BMI	25.82±3.78	24.77±3.93	0.16
FGS	17.32±5.52	3.92±0.98	<0.00[1**]
Total T (nmol/L)	1.66±0.82	0.92±0.46	<0.001[1**]
SHBG (nmol/L)	79.72±60.93	69.54±33.88	0.29
FAI	3.4±3.06	1.67±1.34	<0.001[1**]
DHEAS (μg/dL)	309,23±114.42	234.6±97.2	<0.001[1**]

Values are mean ± standart deviation (SD); BMI:body mass index; FGS: Ferriman-Gallwey score; PCOS: polycystic ovary syndrome; DHEAS: dehydroepiandrosterone sulfate; T: testosterone; SHBG: Sex hormone binding globulin; FAI: free androgen index * Statistically significant ($p<0.05$) ** Statistically highly significant ($p<0.01$)

Table 2. Metabolic, biochemical profile, cardiovascular risk factors and CIMT measurements in women with PCOS and control group

	PCOS (n=57)	Control (n=51)	p value
Homocysteine (μmol/L)	10.23±2.04	7.82±2	<0.001**
Total cholesterol (mg/ dL)	195.53±33.88	193.35±38.11	0.75
HDL cholesterol (mg/ dL)	53.97±13.59	62.37±18.95	0.009**
LDL cholesterol (mg/ dL)	96.71±24.81	79.89±15.77	<0.001**
Triglyceride (mg/ dL)	125.42±32.31	115.31±31.09	0.10
HOMA-IR	3.24±2.3	2.77±2.44	0.31
Right CIMT (mm)	0.51±0.11	0.43±0.07	<0.001**
Left CIMT (mm)	0.50±0.12	0.42±0.07	<0.001**
Mean CIMT (mm)	0.51±0.11	0.43±0.07	<0.001**

Values are mean±standart deviation (SD); PCOS: polycystic ovary syndrome; CIMT: carotid artery intima media thickness; HOMA-IR: homeostasis model assessment insulin resistance index; HDL: high-density lipoprotein; LDL: low-density lipoprotein *Statistically significant (p<0.05) **Statistically highly significant (p<0.01)

and the difference was statistically highly significant (Tables 1 and 2).

Conclusion: Although it is accepted that the metabolic dysfunction in women with PCOS leads to increased risk for CVD (cardiovascular disease), exactly when the risk factors leading to this increased risk starts to differentiate between PCOS and healthy subjects is yet to be determined. In this sudy, the results show a lower HDL and higher LDL and homocysteine levels in young PCOS subjects which reflects a more atherogenic state. Moreover, CIMT, which is a well-established index of atherosclerosis and which is strongly associated with increased risk of cardiovascular events, is statistically highly significantly increased in this young PCOS group. BMI and HOMA-IR were not a factor in this increased CVD risk in our study as there was no difference between the groups. Therefore, it can be concluded that the CVD risk is increased in all women with PCOS starting at very early years of their reproductive life and that they should all be counseled for this increased risk from youth onward.

Keywords: Cardiovascular disease, Carotid artery intima media thickness, polycystic ovary syndrome

[OP-037]

Recurrent pregnancy loss is associated with increased serum growth differentiation factor 15 and C-reactive protein

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Objective: The relation between endothelial dysfunction and recurrent miscarriage (RM) has been verified. Growth differentiation factor 15 (GDF-15) has been documented apotential marker of inflammation and endothelial damage. C-reactive protein (CRP)is a marker of systemic and chronic inflammation.The aim this study was to evaluateendothelial function andinflammatoryalterations by measuring plasma CRPand GDF-15 levels in women with unexplained RMand compare them withhealthy non-pregnant.

Material and Methods: This study was conducted prospectively and performed on 45 patients with unexplained RM and compared to 45 healthy controls. The control group consisted of age and body mass index (BMI) matched women with a history of at least one live delivery and without a history of miscarriage, intrauterine growth restriction, stillbirth and preeclampsia. The RM group was analyzed for autoimmune, genetic, anatomic, endocrine, thrombotic and infectious causes ruled out in all participants in our study. These two groups were compared in terms of GDF-15 and CRP.

Results: The mean GDF-15 level at presentation was 720±131 pg/ml among with healthy parous and was 900±240 pg/ml among women with unexplained RM. The mean levels of GDF-15 were found to be significantly higher in patients with RM than control groups (p<0.001). CRP levels were 3.93±5.57mg/L and 1.75±1.89 mg/L inthe RM and control groups, respectively (p<0.05).

Conclusion: Our study detected statistically and significantly higher CRP and GDF-15 levels in subjects with unexplained RM compared to healthy control groups. Increment in serum GDF-15 levels could be connected with endothelial dysfunction produced by systemic inflammatory processes in women with RM.

Keywords: Recurrent pregnancy loss, GDF-15, CRP

[OP-038]

Pregnancy, fibromyalgia syndrome and serotonin

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Fibromyalgia syndrome (FS) is characterised by widespread pain and increased sensitivity to pain in the central nervous system. Physical and psychological symptoms accompany the disease. The most common accompanying conditions are manual tender points, sleep disorders, fatigue, stiffness, anxiety and depressive symptoms; however, the etiology has not yet been clarified. FS is seen mainly in women between the ages of 25-55. Even though this is a condition that affects women of reproductive age, until now the relationship between pregnancy and FS has not been the subject of many studies. The study is a prospective case-control study conducted with patients at the birth

unit of Department of Obstetrics in the period between January and June 2015. 277 pregnant women were included in this study. In the study, fibromyalgia syndrome was determined based on the presence or absence of the 2010 ACR diagnostic criteria. Our study included 150 pregnant women who had fibromyalgia syndrome, classified according to these criteria. The control group include 127 pregnant women who did not have fibromyalgia syndrome. The impact of the presence of fibromyalgia on the functional status of the patients in their daily life was evaluated using the FIQ (Fibromyalgia Impact Questionnaire). VAS (Visual Analog Scale) is used to assess the severity of pain; BDI (Beck Depression Inventory) is used for assessing depression. This study included 150 pregnant women who had fibromyalgia syndrome and 127 pregnant women who did not FS. There was no demographic differences between the groups. When the difference between FS group and the control group in terms of these queries is studied as a single variable, its has been shown statistically that in the presence of FMS, the physical and psychological scores are negatively affected ($p<0.001$). No correlation between the marital satisfaction form results of the questionnaire and the presence of FS ($p=0.634$).In the study, the group with fibromyalgia syndrome and the control group were compared in terms of biochemical and hormonal parameters. The results of this comparison are as follows: There was no significant difference between the groups in terms of glucose, calcium, phosphorus, PTH, TSH, fT4 levels. Comparison of the results from the fibromyalgia syndrome group and control group showed that the serotonin levels in the fibromyalgia syndrome group were significantly lower than the level of serotonin in the control group ($p=0.009$). The correlation between the Beck Depression Inventory scores and other parameters showed that pain and physical impact scores are negatively affected by depression ($P=0.000$). A one-unit increase in the BDI score increases the risk of FS 1.22 fold, which was statistically significant. A 1-unit decrease in the amount of serotonin increases the risk of the FS 1.003 times. But this correlation was not statistically significant. In conclusion, our study has shown that serotonin levels in women with FMS are lower than the control group and that serotonin levels reduce as pregnancy progresses. Anxiety and depression in pregnant women with FS are higher than the control group. The presence of depression increases the likelihood of developing FS.

Keywords: Pregnancy, serotonin, fibromyalgia

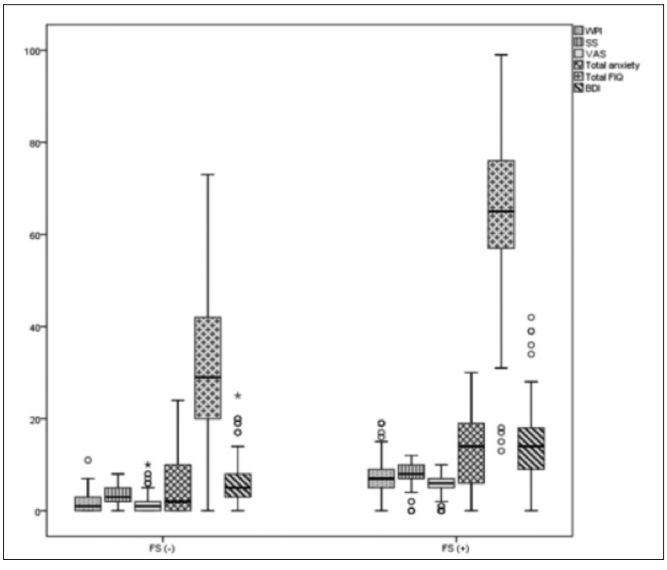

Figure 1. Changes in physical and psychological effects in FS (-) and FS (+) groups in WPI, SS, VAS total anxiety, total FIQ and BDI queries

[OP-040]

Examination of effects on uterine and ovarian volumes of intrauterine system containing levonorgestrel

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Objective: This article aimed to examined the effect of ovarian and uterine volume in premenopausal patients who applied to intrauterine device with Levonorgestrel due to heavy menstrual bleeding

Material and Methods: In this study, 117 premenopausal patients with heavy menstrual bleeding who admitted to Mustafa Kemal Univercity Faculty of Medicine Gynecology Clinic were included. 91 patients completed the 1-year follow-up. Their ages ranged from 23 to 49, mean age is 39.54 ± 6.4. Uterus and ovaries were considered to be ellipsoidal organs. V = d1xd2xd3x0,52 formula was used for both organs in the volume calculation using three wide(D1: transverse diameter, D2: anteroposterior diameter D3 Longitudinal diameter). When calculating the uterine volüme, it was measured to not get into the cervix.The pretreatment and posttreatment 12th months of uterine and ovarian volume were measured and recorded.

Results: A slight decrease in uterine volume after treatment compared to before treatment, although this difference was not statistically significant (Pretreatment uterine volume: 65 ± 12,28cm3, after treatment of uterine volume: 62.99 ± 11,89cm3 $p> 0.05$) (See Table 11 and Figure 25). After treatment compared to before treatment, the right and left ovarian volume was not statistically significant difference ($p> 0.05$). In addition, between the right and left ovaries of their volume measurements before treatment and after treatment did not reveal statistically significant difference (Pre-treatment right ovarian volume: 23.83 ± 4,32 cm^3, after treatment right ovarian volume: 23.42 ± 4,47 cm^3 $p> 0.05$, pre-treatment left ovarian volume: 23,36 cm^3, after treatment left ovarian volume: 23.00±4, 39 cm^3 $p>0.05$).

Discussion: Mirena is a good alternative to hysterectomy in woman who have excessive menstrual bleeding. In the literature, many studies have found that Mirena is an alternative to hysterectomy is a minimally invasive method. When they examine 33 cases for 1 year, they found decreased uterine volume. Although we detect a slight reduction in uterine volume in our study, this difference was not statistically significant. There are many studies in the literatüre about that LNG-IUD has no effect to uterine and uterine volume reduction and change. Some researchers have suggested that LNG-IUD prevent bleeding by reducing uterine volüme. In a series of 67 cases, they reported that Mirena decrease in both the volume of uterine and fibroids. In a prospective multicenter randomized study for 7-year, they reported that LNG-IUD didn't demonstrate a change for uterine volüme and fibroids volüme.

Conclusion: LNG-IUD is a highly efficient and reliable technique for heavy menstrual bleeding. Its effect of the uterine volume is contro-

versial. In our study, there were no significant changes in the uterine and ovarian volüme for 1-year. Our long-term volume study continues.

Keywords: LNG-IUD, uterine volume, ovarian volume

[OP-041]

A rare-type of endometriosis: abdominal wall endometriosis

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Objective: In endometriosis, functional endometrial gland and stroma locate uterus cavity; a displacement from inside to outside. Even though it is common for all organs, it is most common for pelvis, which can result in dysmenorrhea, dyspareunia, chronic pelvic pain and infertility. Surgery is common for abdominal wall endometriosis which is easily diagnosed. Cyclic abdominal pain during menstrual-period and mass that is recognized by hand is helpful for the diagnose. Its discriminatory diagnosis from suture granuloma, incisional hernia, and primer and/or metastatic cancer must be performed.

Case: A 42-year old patient (gravidity 5 and parity 5), who underwent three caesareans among which the last one was 5 years ago, reported abdominal severe pain during menstrual-period. Gynecological examination and pelvic ultrasonography were normal for the patient. A solid heterogeneous 22X17 mm solid lesion was observed in surface ultrasonography of abdominal anterior wall (Image 1). The patient underwent surgery with pre-diagnosis of endometriosis based on her caesarean history and the cyclic pain in the region. Skin was opened with left pararectal incision, and 2-cm mass fixed to rectus fascia was observed (Image 2). The mass was cut with the surrounding tissue, and pathological results revealed endometriosis locating in fibromuscular-musculo-adipose tissues. The patient was discharged from the hospital one day after the surgery.

Result: Despite the fact that abdominal wall endometriosis has the lowest incidence among the external endometriosis; it is the easiest diagnosed type. Cyclic pain and the mass recognized by hand are the two most prominent symptoms. Relatively slight surgery can overcome this problem.

Keywords: Endometriosis, chronic pelvic pain, caesarean

Figure 1. Ultrasound image of the abdominal wall endometriosis

Figure 2. Intraoperative image of abdominal wall endometriosis

[OP-043]

Five years data about refugee services of Turkey's biggest government woman hospital

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Objective: The chaotic situation in Syria, Iraq, Horn of Africa and the Sub-Saharan region continue to fuel refugee movements. Through 2015 both inflows surged and the routes used by asylum seekers from Syria, Iraq and Afghanistan, Pakistan and Africa changed to the "Eastern Mediterranean and Western Balkan route". Turkey is the most affected country in the OECD, currently hosting as many as 3 million Syrians as well as a large number of people from Iraq mostly under temporary protection status. In this poster, we present the 5 year datas of Dr Zekai Tahir Burak Women's Health Training and Research Hospital (Ankara) about the immigrant patients since the eruption of Syrian civil war in 2011.

Table 1. WHO Defined Basic Principles of Public Health Strategies for Migrants

Avoid disparities in health status and access to health services between migrants and the host population.
Ensure migrants' health rights which entails limiting discrimination or stigmatization, and removing impediments to migrants' access to preventive and curative interventions, that are the basic health entitlements of the host population.
Put in place life-saving interventions so as to reduce excess mortality and morbidity.
Minimize the negative impact of the migration process on migrants' health outcomes.

Table 2. Hospital Data of Reugees

Years	Total number of patients applied to outpatient clinic	Total number of refugees applied to outpatient clinic	Total number of hospitilised refugees	Total number of births	Total number of refugees giving birth
2015	236762	12894 (5.4%)	877	17704	836 (4.7%)
Syria		6271 (2.6%)			
Iraq		3275 (1.3%)			
Other		3348 (1.4%)			
2014	277539	5616 (2.02%)	1087	18429	
Syria		2437 (0.87%)			
Iraq		333 (0.11%)			
Other		2846 (1.02%)			
2013	324390	2509 (0.77%)	402	17917	
Syria		50 (0.01%)			
Iraq		6 (0.001%)			
Other		2453 (0.75%)			
2012	299543	1847 (0.61%)	292	17690	
Syria		15 (0.005%)			
Iraq		25 (0.008%)			
Other		1807 (0.6%)			
2011	239414	1447 (0.6%)	209	18215	
Syria		7 (0.002%)			
Iraq		14 (0.005%)			
Other		1426 (0.59%)			
Other;Afghanistan Pakistan, Africa,Ukraine					

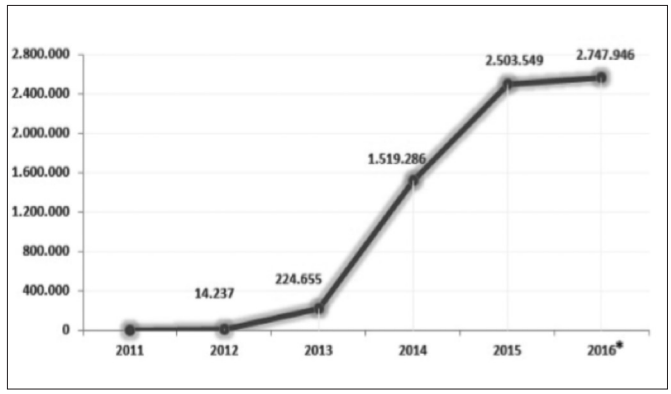

Figure 1. Number of temporary protection idendity card given refugees according to years

Material and Methods: From Immigration Office and from our Hospital records, we reached the number of refugees has been given temporary protection idendity cards and treated in our hospital since the start of Syrian civil war in 2011.

Results: Disaster coordination center of the Turkish Primary Ministry has been developing the immigration policies of Turkey. Immigration Offices under Turkish Ministry of Interior Affairs in coordination with Ministry of Health and Ministry of Family and Social Policies deals with the immigrant problems in parallel with World Health Organisation (WHO) suggestions (Table 1). Most of the immigrants were given temporary protection idendity cards that they could reach the social services of Turkish Government including the health insurence services without payment. (Figure 1) Our hospital datas are given in (Table 2).

Conclusion: The refugee number increased nearly 3 million in 2016 and the Turkish Government free servises especially in health, reached to huge numbers. Migrant healthcare projects need more research and eventually international best practices.

Keywords: Refugee, women, health

[OP-045]

ADAMTS-3, -13, -16, and -19 levels in patients with habitual abortion

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Objective: A Disintegrin-like and Metalloproteinase with Thrombospondin type-1 motif (ADAMTS) proteinases, which are released outside the cell, have critical roles in extracellular matrix (ECM) remodeling and has 19 family members. These enzymes have very critical roles in the physiology of the female reproductive system including gonadal development, ovulation, implantation, angiogenesis and steroidogenesis. The aim of this study was to investigate ADAMTS 3, 13, 16 and 19 levels in patients with habitual abortion.

Material and Methods: The study group was selected from a population of non-smoking women with 3 or more abortion who applied to infertility outpatient clinic at Zekai Tahir Burak Women's Health Research and Education Hospital, Ankara, Turkey, between February 2015 and January 2016. Patients with additional diseases (antiphospholipd syndrome, diabetes, thyroid diseases) and who have genetic translocations were excluded from the study. A total of 86 women (45 patients with habitual abortion and 41 healthy women) were enrolled in this prospective case-control study. Serum ADAMTS 3, 13, 16 and 19 values were measured by commercially available Enzyme-Linked ImmunoSorbent Assay (ELISA) kit (HANGZHOU EASTBİOPHARM CO., LTD., China). The local ethical committee approved the study and written informed consent was taken from all of the patients Statistical comparisons were carried out by Chi-square test and Student "t" test. Receiver operator characteristics curve analysis was performed to reveal predictive value of ADAMTS proteins for habitual abortion. Regardless of the statistical test, only a p value <= 0.05 was considered significant.

Results: There were no statistically significant differences between the groups according to age, BMI, ADAMTS 13 and 19 levels ($p<0.05$). However ADAMTS 3 and 16 were significantly higher in the study group ($p=0.004$, $p=0.005$, respectively). To estimate the habitual abortion; the cut off values for ADAMTS 3 and 16 were found to be 87.28 (Specificity 68.29%, Sensitivity 64.44%), and 15.75 (Specificity 68.29%, Sensitivity 66.67%), respectively.

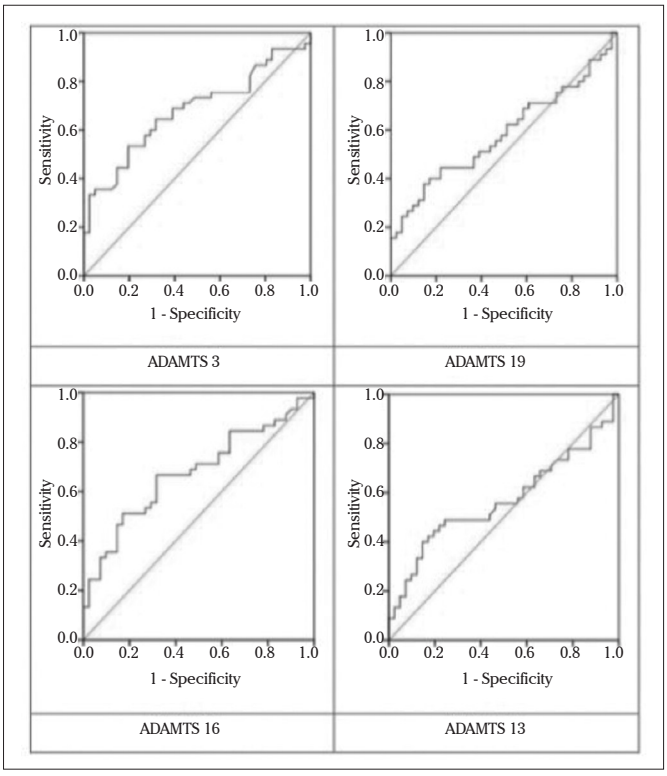

Figure 1. rROC Analysis

Table 1. Demographic characteristics

Variables	Control (n=41)	Habitual Abortion (n=45)	P
Age (years)	31.0 (31.0 – 41.0)	28.0 (20.0 – 45.0)	0.171
BMI (kg/m²)	25.70±3.96	24.62±2.75	0.150
Gravidity	2.0 (2.0 – 6.0)	3.0 (2.0 – 12.0)	<0.001
Parity	2.0 (2.0 – 4.0)	0.0 (0.0 – 2.0)	<0.001
Marriage duration (years)	11.0 (3.0 –20.0)	7.0 (1.0 – 20.0)	<0.001
Comorbidity	4 (9.8)	6 (13.3)	0.741

BMI: body mass index, Data are presented as mean±, median (min-max), and number (percentage). A p value>0.05 is considered statistically significant.

Table 2. Laboratory characteristics

Variables	Control (n=41)	Habitual Abortion (n=45)	P
ADAMTS 3	82.09±24.49	120.59±66.05	0.004
ADAMTS 19	16.93±8.55	23.52±16.01	0.182
ADAMTS 16	16.46±7.19	24.89±15.86	0.005
ADAMTS 13	4.10±1.91	5.19±2.83	0.274

Conclusion: In our study, ADAMTS 3 and 16 levels were higher in patients with habituel abortion. Since ADAMTS 16 together with Wilms' tumor protein (Wt1) has a critical role in female gonadal development, higher values in habitual abortion patients created interest if there is a problem of gonadal development in this group of patients. ADAMTS 3 is important in cell adhesion in endometrial cell line. Higher values may be related to the implantation problems in this group of patients.

Keywords: ADAMTS, habitual abortion, implantation

[OP-046]

The diagnostic accuracy of endometrial sampling in endometrial hyperplasia

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Objective: Endometrial hyperplasia (EH) refers to premalignant lesions that characterized with hyperplastic changes in glands and stromal structures flooring uterine cavity. It is observed in 1.5-15% of patients with abnormal uterine bleeding, and 5% of hysterectomy specimens. This study aimed to evaluate the diagnostic stability of preoperative endometrial sampling results of EH, with postoperative hysterectomy specimen evaluations.

Material and Methods: Patients who took a diagnosis of endometrial hyperplasia (EH) by endometrial biopsy and/or hysterectomy at the Gynecology and Obstetrics Department of Dicle University Medical Faculty between January 2006 and July 2014 were evaluated retrospectively. Eighty patients with complete preoperative and postoperative data, and pathology reports confirming EH were included in the study. Age, previous surgeries, menopausal state, endometrial biopsy result, and post-hysterectomy pathology result were obtained from patient records. Sensitivity, specificity, positive and negative predictive values were calculated for endometrial biopsy to predict the lesions in hysterectomy specimens.

Results: Fifty-three of patients were premenopausal, and 27 were post-menopausal. Mean ages were 42.6±4.8 (28-50) years, and 57.5±7.7 (50-79) years for premenopausal and postmenopausal patients, respectively. Endometrial sampling had 71.9% of sensitivity, 87.5% of specificity, 79.3% of positive predictive value, and 82.3% of negative predictive value for determining the exact pathological diagnosis. A patient with a preoperative diagnosis of complex atypia was reported to be endometrial adenocancer (3.8%), and 20 patients (76.9%) had results compatible with endometrial sampling.

Conclusion: Sensitivity and specificity was found to be high in patients who referred with abnormal uterine bleeding, and reported to have premalignant lesions in endometrial sampling. We think that non-surgical follow-ups with endometrial sampling will be a safe way.

Keywords: Endometrial hyperplasia, Endometrial sampling, Hysterectomy

[OP-047]

A preliminary investigation on the use of fourier transform infrared spectroscopy as a non-invasive diagnosis of endometriosis

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Objective: Since patients with endometriosis have altered functional properties in the "eutopic" endometrium including significant aromatase activity and different hormonal environment when compared with regular endometrial tissue from women without endometriosis, investigation of cells and secretions drawn from cervical canal might be projected as a novel technique for the diagnosis of the endometriosis. In this preliminary study, we mainly aimed to evaluate the usefulness and feasibility of FTIR spectroscopy as an alternative method in the diagnosis of endometriosis using cervical fluid swap samples.

Material and Methods: The study was carried out in Department of Obstetrics and Gynecology, Hacettepe University between January-2012 and June-2013. After completion of sample collection, FTIR analysis was performed in Institute of Biotechnology, Ankara University at June-2014. The exclusion criteria were (1) being out of female age 18-45 years, (2) menstrual irregularity, (3) history of abnormal cervical cytology with cervical smear, (4) current or past use of any hormonal drug, (5) intravaginal medication in the last 1 month, (6) presence of IUD and (7) suspicious of leiomyoma and/or adenomyosis with ultrasonography. Prospectively, all women undergoing surgery between 18-45 years were asked to participate the current study before surgical intervention. Cervical swap was taken from patients immediately after induction of anesthesia. After completion of the surgical procedure, patient was assigned to one of the study groups (early or advanced stage endometriosis) or taken as controls, if no lesion was visualized. Regarding the study group, a total of 38 women were eligible for the cervical swap assessment. Of them, 25 were excluded from the final analysis due to following reasons: being out of late follicular phase (n=7), notification of blood in the cervical swap (n=8) or failure to reproduce a waveform with FTIR spectroscopy (n=5). Another 5 samples were used for the standardization and development of the sample collection and FTIR spectroscopy protocols. At last, remaining 13 samples were used for the final analysis. Each saline solution including sample material were freeze-dryed and measured using Bruker Tensor 27 FTIR equipped with attenuated total reflectance cell. Spectra were interpreted by OPUS 5.5 software. ANOVA was used for statistical evaluation.

Results: We obtained FTIR spectra of all the samples and used fingerprint region (1750-850 cm-1) for the analyses. We observed 10 significant peaks in the FTIR spectra of samples and they were assigned to different biological molecules such as lipid, carbohydrate, protein and nucleic acid according to their bond structures. We observed some alterations in the levels of various biomolecules between groups. Lipid peak significantly increased in the late stage endometriosis group, compared to controls. Also we performed hierarchical cluster analysis but we did not obtain significant classification of groups.

Conclusion: In conclusion, FTIR has the potential to provide biochemical information about endometriosis from the cervical fluid. FTIR spectroscopy based methods may be useful as a non-invasive, quick and sensitive method. Since this is a preliminary study, the results should be confirmed with larger sample size in order to make reliable multivariable statistics.

Keywords: Endometriosis, non-invasive screening test, FTIR, cervical swap

[OP-049]

A retrospective analysis of surgical site infections in gynecology

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Objective: To evaluate the occurrence of surgical site infections (SSIs) and to identify accompanying risk factors in patients operated for benign gynecological diseases.

Material and Methods: We evaluated the patients operated for benign gynecological diseases between January 2014 and December 2015. Cefazolin prophylaxis was given to all patients. Fourteen patients, hospitalized with a diagnosis of postoperative SSI, were enrolled in the study. Demographic characteristics, operation type, the possible risk factors were evaluated from the patients' medical records retrospectively. Descriptive analysis of the data was presented.

Results: A total of 608 patients were operated for different benign causes in a 2-year time. Among these patients, the routes of operations were laparotomy in 397 patients (65.2%) and laparoscopy in 211 (34.8%). A total of 14 patients were hospitalized for SSI. The overall rate of SSI was 2.3%. The rate was 3.2% for laparotomies, and 0.47% for laparoscopic operations. The mean age, gravidity, parity, body mass index (BMI), preoperative hemoglobin levels, preoperative glucose levels were 49.5 ± 8.5 years, 4.7 ± 2.7, 3 ± 0.9, 32.14 ± 3.86 kg/m2, 11.2 ± 1.9, 94.2 ± 10.8 mg/dL, respectively. The mean admission time to the hospital was 11.8 ± 6.6 days after the operation. The indications of the operations were as follows; myoma uteri (n=7, 50%), abnormal uterine bleeding (n=3, 21.4%), recurrent endometrial hyperplasia (n=2, 14.3%), tuboovarian abscess (n=1, 7.1%) and pelvic organ prolapse (n=1, 7.1%). The type of incision was a Phannenstiel incision in 12 patients (85.7%), and midline incision in 2 (14.3%). While 13 patients had superficial SSI (92.8%), only one patient (7%) had deep incisional SSI.

Conclusion: SSIs are a type of healthcare-associated infection and can cause significant morbidity and mortality if it is untreated. Because these infections are preventable, healthcare providers should analyze the anatomy, microbiology, patient characteristics and probable risk factors with rational drug usage, and clinical suggestions and evidence-based studies should take part in our routine clinical practice.

Keywords: Surgical site infections, gynecology, outcome

[OP-050]

Two years follow-up of patients with abnormal uterine bleeding after ınsertion of the levonorgestrel-releasing intrauterine system

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Objective: To evaluate the efficacy and safety of an intrauterine system releasing 20 μg of levonorgestrel per 24 hours in the long-term treatment of heavy menstrual blood loss in women unrelated to intrauterine pathology.

Material and Methods: One hundred six parous women aged 33-48 years with recurrent menorrhagia participated in this study. The women were followed-up for 24 months. They were assessed for intensity of bleeding both for preinsertion periods and for postinsertion periods using the original pictorial blood loss chart (PBAC), uterine volume, and Doppler velocimetry of the uterine arteries, hematocrit, and hemoglobin. An intrauterine device releasing levonorgestrel 20 μg/day was inserted in each patient within 7 days of the start of menstrual flow. The women were followed-up at 1, 3, 6, 12, 18, and 24 months following insertion of the intrauterine device for clinical and transvaginal ultrasound examinations.

Results: Expulsion of the intrauterine device occurred 2 months after insertion in one patient and she decided to drop out of the trial; three women were lost to follow-up after achieving amenorrhea and expressing satisfaction. The remaining 102 women completed two years of follow-up and had a significant reduction in the amount of menstrual blood loss. The levonorgestrel-releasing intrauterine system (LNG-IUS) was well tolerated by all women and no important systemic hormonal side effects were reported.

Conclusion: Our findings indicate that the LNG-IUS is effective for significantly reducing the amount of menstrual blood loss in women with menorrhagia, even in the presence of adenomyosis, and intramural and subserosal myomas, and renders surgery unnecessary. Mean hemoglobin (g/dL) concentration for all patients was 10.65 ± 1.37 before the beginning of insertion and 12.50 ± 1.00 after 24 months of use of the LNG-IUS, with a mean increase ($p<0.05$). Pre-treatment of use of the LNG-IUS, endometrial biopsy patterns for irregular proliferative endometrium and for atypical simple hyperplasia were 34/106 (32.08%), and 61/106 (57.55%), respectively and after treatment no abnormal pathologic findings were found ($p<0.001$).

Keywords: Menorrhagia, Levonorgestrel, LNG-IUS, abnormal uterine bleeding

[OP-052]

Subcutaneous wound infiltration of ketamine is superior to bupivacaine in terms of pain perception and opioid consumption after cesarean section: a double-blinded randomized placebo controlled clinical trial

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Objective: To assess the analgesic efficacy of wound infiltration of ketamine, either alone or as an adjuvant to bupivacaine, following cesarean section (CS) and to compare their effects on postoperative pain scores and opioid consumption.

Material and Methods: Prospective randomized, double-blinded, placebo controlled trial. A total of 120 ASA physical status I-II women, who underwent elective cesarean section under spinal anesthesia, were randomly assigned into four groups. Group K (Ketamine, n=30) received ketamine, Group B (Bupivacaine, n=30) received bupivacaine 0.5%, Group KB (Ketamine+Bupivacaine, n=30) received ketamine+bupivacaine 0.5% and Group P (Placebo, n=30) received 0.9% saline solution. VAS scores at resting and on coughing and analgesic consumptions were compared. Visual analogue scale (VAS) at rest and on coughing, throughout the 15th and 60th minutes, 2nd, 6th and 12th hours, and total morphine consumptions.

Results: Resting VAS score in Group P was significantly higher than in Group KB at the 6th hour interval, while it was significantly lower in Group K and Group KB than in Groups B or P at the 12th hour. Patients receiving placebo had signifıcntly higher coughing VAS scores than those receiving ketamine or ketamine+bupivacaine at 2nd, 6th and 12th hour intervals. Patients in groups P and B required significantly higher doses of morphine than those in groups K or KB.

Conclusion: Post-incisional wound infiltration of ketamine, either alone or in combination with bupivacaine, provides a better postoperative pain relief and reduces postoperative opioid consumption when compared to use of bupivacaine alone.

Keywords: Cesarean section, ketamine, wound infiltration, postoperative analgesia

[OP-053]

Comparison of blood and urine nephrin levels in preeclampsia and intrauterine growth retardation

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Objective: To evaluate the relation between nephrin levels and preeclampsia severity by comparing serum and urine levels of nephrin in the severe and mild groups according to intrauterine growth retardation (IUGR) development.

Material and Methods: A total of 150 patients who were introduced our clinic were included in this study. We have 5 groups; Group 1: 30 patients with mild preeclampsia (MP) and normal fetal development (NFD), Group 2: 30 patients with severe preeclampsia (SP) and NFD, Group 3: 30 patients with MP and IUGR, Group 4: 30 patients with SP and IUGR and Group 5: 30 volunteers who were normotansive and non-preeclamptic. We obtained both blood and urine for measuring nephrin levels.

Results: Serum and urine nephrin levels are presented in Table 1. Having both serum and urine concentration of nephrin compared for both parameters, the levels of severe preeclampsia group +IUGR were measured considerably higher as statistical than all other groups ($p<0.001$). On the other hand, the levels of severe preeclampsia group out of IUGR were measured considerably higher than mild preeclampsia group out of IUGR and control group ($p<0.001$).Urine and serum nephrin levels with gestational age of delivery showed a negatif correlation ($r=-0.621$, $p<0.001$) and also urine and serum nephrin levels with birth weight showed a negatif correlation too ($r=-0.655$ $p<0.001$).

Conclusion: Our study demonstrates that both serum and urinary nephrin is related with SP and IUGR development. It has been claimed that nephrin may be useful marker for SGA prediction during the first trimester; however, it may be useful for the detection of preeclampsia, only in the third trimester. It has been found that nephrin may be a marker of subclinical renal damage, can be detected before overt proteinuria and the full clinical features of preeclampsia develops. We found that both serum and urine nephrin levels were highest in SP and IUGR group. Morover SP and NFD group had considerably elevated serum and urine nephrin levels. MP and IUGR group had higher serum and urine nephrin levels than control group. We are of the opinion that increasing levels of nephrine is related to preeclampsia severity and IUGR development. This is the first study in literature which illustrated positive correlation between serum-urine nephrine levels and IUGR on the basis of preeclampsia.

Keywords: Nephrin, intrauterine growth retardation, preeclampsia

Serum and urine nephrine values

Criteria*	Patients with MP and NFD	Patients with SP and NFD	Patients with MP and IUGR	Patients with SP and IUGR	Control group	P value
Serum nephrin values (ng/ml)	2.187 (1.679-2.518)	4.285a,b (3.819-5.160)	3.412a (3.012-3.965)	7.411a,b,c,d (6.642-8.478)	0.895 (0.555-1.312)	<0.001
Urine nephrin values (ng/ml)	6.479 (5.575-7.22)	12.035a,b (11.448-12.76)	9.591a (8.99-10.045)	18.385a,b,c,d (17.002-20.23)	2.728 (1.67-3.728)	<0.001

*All criterias were calculated by using Kruskal-Wallis a) means that when a data matched with control group $p<0.001$ b) means that when a data matched with MP and NFD group $p<0.001$ c) means that when a data matched with SP and NFD group $p<0.001$ d) means that when a data matched with MP and IUGR group $p<0.001$

[OP-054]

What is frightening the multiple cesarean section?

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Objective: The surgical complications were compared between the patients with three or less prior cesarean deliveries and four or more prior cesarean deliveries in this study.

Material and Methods: Records of 120 patients with cesarean sections in our department of Obstetrics and Gynecology between Augst 2015 and November 2015 were retrospectively studied. Cases were reviewed regarding the age, type of operation, type of anesthesia, number of cesarean sections, time of hospitalization, intraoperative and postoperative complications.

Results: Cesarean section had performed in 62 (51.7 %) patients whose cesarean number was <= 3, and 58 (48.3 %) patients had multiple cesarean sections that greater than four. Patients with four or more prior cesarean has an increased rate of intraabdominal adhesions compared with the other group. There was no significant difference in the gestational weeks, neonatal admission rate, incidence of cesarean hysterectomy, uterine scar rupture, placenta previa with placental invasion anomalies, bladder and bowel injuries, incidence of peripartum haemorrhage and blood transfusion rate between the two groups. The complication rates of both groups are presented in Table 1.

Conclusion: There was no more risk for maternal complications in patients with four or more prior cesarean, excepting intraabdominal adhesions. Therefore, it is difficult to give an exact safe uppern limit for repeated cesarean section. We think to inform the patients about the risks of repeated cesarean section but not to intimidate them.

Keywords: Multiple cesarean, complications, maternal risk

Complication rates of patients in both groups

Complications (PN*)	CS number <= 3 (n: 62)	CS number >=4 (n:58)	p
General complication rates	17 (7.4%)	13 (22.4%)	>0.05
Bleeding	11 (17.7%)	8 (13.8%)	>0.05
Blood transfusion	10 (16.1%)	6 (10.3%)	>0.05
Intra-abdominal adhesion	12 (19.4%)	34 (58.6%)	<0.001
Bladder injury	1 (1.72%)	1 (1.70%)	>0.05
Bowel injury	0	1 (1.70%)	>0.05
Placental invasion abnormality	9 (14.5%)	6 (10.3%)	>0.05
Rupture	2 (3.2%)	1 (1.70%)	>0.05
Cesarean hysterectomy	3 (4.8%)	2 (3.4%)	>0.05
Intensive care unit	16 (25.8%)	8 (13.8%)	>0.05
Neonatal death	4 (6.5%)	2 (3.4%)	>0.05

*PN: patient number

[OP-056]

Is there a relationship between amniotic fluid cytokines levels and postterm pregnancy

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Objective: To research amniotic fluid pro-inflammatory and anti-inflammatory cytokine levels in patients with postterm pregnancy and to determine whether there was any relationship between these cytokines and postterm pregnancy.

Material and Methods: This prospective study included 92 patients, separated into 3 groups as postterm (Group 1, n=29), full-term in labour (Group 2, n=28) and control (Group 3, n=30). 5 patients were excluded from the study. All patients were evaluated in respect of age, gravidity, parity, obstetric history, gestation week, cervical dilatation and effacement, maternal serum C-reactive protein and white cell count, amniotic interleukine 4, 6 and 10 levels, birthweight and cord blood pH.

Results: The amniotic fluid interleukine 10 level was 24.4 ±8.8 pg/mL in the postterm group, 13.5±5.1 pg/mL in the term in labor group and 19.8±5.4 pg/mL in the control group (p<0,001). The amniotic fluid interleukine 4 level was 86.5±57,7 pg/mL in the postterm group, 38.2±29.2 pg/mL in the term in labor group and 81.9±68.4 pg/mL in the control group (p=0,002). The amniotic fluid interleukine 6 level was 329±135.1 pg/mL in the postterm group, 252.8±138.7 pg/mL in the term in labor group and 227.9±114.4 pg/mL in the control group (p=0,02). There was positive correlation between gestational age and amniotic fluid anti-inflammatory cytokine levels (p<0,05).

Conclusion: Both pro-inflammatory and anti-inflammatory cytokine levels in amniotic fluid were increased in patients with postterm pregnancy. These results may play a role in etiopathogenesis of postterm pregnancy.

Keywords: Amniotic fluid, cytokines, postterm pregnancy

[OP-057]

Impairment of thiol disulphide homeostasis in preeclampsia

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Objective: To investigate the effects of severity of preeclampsia on thiol-disulphide homeostasis (TDH).

Material and Methods: A total of 108 participants were divided into three groups: Group 1 was composed of pregnant women with no obstretric complications, group 2 included pregnant women with mild preeclampsia, and group 3 consisted of pregnant women with severe preeclampsia. TDH parameters were determined, and comparisons of clinical and routine laboratory test findings were made in all groups.

Results: The serum native thiol level was 347.9 ± 27.4 in the control group, 237.2 ± 44.2 in the mild preeclampsia group, and 227.9 ± 53.1 in the severe preeclampsia group (p<0.001). The serum total thiol level was 376.1 ± 31.9 in the control group, 261.8 ± 49.4 in the mild pre-eclampsia group, and 248.3 ±57.4 in the severe preeclampsia group (p<0.001). The disulphide level was 14.1 ± 5.6 in the control group, 12.3 ± 5.1 in the mild preeclampsia group, and 10.2 ± 4.8 in the severe preeclampsia group (p=0.001). A significant correlation between impairment in degree of TDH and severity of preeclampsia was observed.

Conclusion: Impairment of TDH in women with preeclampsia increased with disease severity. Therefore, impaired TDH may have a role in the etiopathogenesis of the disease.

Keywords: Disulphide, preeclampsia, thiol

[OP-058]

Evaluation of maternal hemorrhage in placenta accreta

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Objective: The aim of the present study is to provide a retrospective evaluation of placenta accreta cases to identify the factors affecting the blood transfusion requirement, which stands as one of the most important causes of maternal mortality and morbidity.

Material and Methods: A total of 110 patients who presented to the Outpatient Clinic of Gynaecology and Obstetrics of the Faculty of Medicine of Dicle University and were diagnosed with placental attachment before or during a caesarean section (C-section) between January 2006 and June 2015 were included in this study. The patients' data were collected from the hospital's records.

Results: During the study period, 21674 births were realised and 110 (1/200) of these patients exhibited placenta accreta. 86 of these 110 patients (78,2%) received at least one unit of blood. Demographic parameters of the patients are shown in Table 1.The group of patients that had received blood transfusion exhibited significantly higher values in age, parity, number of C-sections, length of stay (p = 0.003, 0.004, 0.024, 0.000, respectively). Multiple logistical regression analysis led to the identification of a significant association between the length of stay and the blood transfusion requirements (OR 95% Cl 2.005 (1.213-3.314) p=0.007) (Table 2).

Table 1. Evaluation of patients according to demographic data

	Mean±S.D.	Median (Min-max)
Year	32.6±5.6	33(17-49)
Parity	3.6 ±2.1	3(0-11)
Gestational week	34.7±3.4	35(16-40)
The number of cesarean delivery	1.8±1.1	2(0-4)
Estimated blood loss (ml)	1715±1105	1500(200-6000)
The number of blood transfusions	2.2±2.2	2(0-14)
Number of days in hospital stay	5.3±3.4	4(2-26)

Data were expressed in means ±standard deviations and median (min-max)
Abbreviations: S.D.: Standard deviations

Table 2. Parameters indicating positive correlation with blood transfusion and results of logistical regression analysis

	Pearson's correlation (r)	p	Logistic regression (95% Cl OR)	p
Year	0.277**	0.003	1.099 (0.981-1.232)	0.105
Parity	0.271**	0.004	1.175 (0.858-1.610)	0.315
Number of days in hospital stay	0.269 **	0.004	2.005(1.213-3.314)	0.007
The number of cesarean delivery	0.215*	0.024	1.452 (0.902-2.336)	0.125

The (Pearson's) correlation coefficients (r) and logistic regression (95 % Confidence Interval Odds Ratio) are given in the table. P <0.05 was considered statistically significant

Conclusion: Patients of advanced age as well as grand multiparous patients and patients with a history of multiple repeat caesarean deliveries should be evaluated more carefully during pregnancy. These patients should be referred to hospitals that provide multidisciplinary care and management before the delivery or even at the early stages of pregnancy in an effort to bring down maternal mortality and morbidity rates.

Keywords: Placenta accreta, maternal haemorrhage, morbidity

[OP-059]

Evaluation of the relationship between methyltetrahydrofolate reductase (MTHFR) gene polymorphism, folate metabolism and homocysteine value in father-mather-child as a risk of Down's syndrome: a clinic study

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Objective: The objective of our study is evaluating the relationship folate/homocysteine metabolism with having a child with Down syndrome (DS) as well as mother, father and the child.

Material and Methods: 48 families who have children with DS (father, mother, child with DS) and as control group 20 families (father, mother, child) who had not experienced miscarriages or abnormal pregnancies and delivered a healthy child, were studied. The mothers were separated into two groups above 35 years of age and under 35 years of age. MTHFR gene C677T and A1298C polymorphisms, Vit-B6 (vitamin B6), Vit-B12 (vitamin B12), folic acid and homocysteine (Hyc) levels were analyzed in these families.

Results: In our study no relationship was found between DS and MTHFR gene polymorphisms, Vit-B12 and Vit-B6 levels in parents. Mothers and fathers with folic acid value less than 8.4 which is although in the reference range, were found more risky in terms of DS in logistic regression analysis and detailed Blogreg analysis (Odds Ratio (OR): 5.405, 3.745, respectively). Hyc levels were found higher in 26.3% of the fathers in mothers with a DS child (DSM) group under 35 years

Table 1.

	MTHFR A1298C	MTHFR A1298C	MTHFR A1298C	MTHFR C677T	MTHFR C677T	MTHFR C677T	B12 Vitamin	B6 Vitamin	Folic acid	Homocysteine
GROUPS	Wild Type	Homozygous mutation	Heterozygous mutation	Wild Type	Homozygous mutation	Heterozygous mutation	Mean	Mean	Mean	Mean
Group Ia: Mothers who have children with DS before age of 35 (n=24)	10 (41.7%)	3 (12.5%)	11 (45.8%)	11 (45.8%)	2 (8.3%)	11 (45.8%)	270.17± 157.13	8.02± 4.69	7.18± 1.86	17.12± 7.77
Group IIa: Mothers who have children with DS after age of 35 (n=24)	6 (25.0%)	6 (25.0%)	12 (50.0%)	14 (58.3%)	1 (4.2%)	9 (37.5%)	224.71 ±127.26	11.08 ±7.89	7.81 ±2.93	11.00 ±5.76
Group IIIa: Mothers who have healthy children before age of 35 (n=10)	3 (30.0%)	2 (20.0%)	5 (50.0%)	3 (30.0%)	1 (10.0%)	6 (60.0%)	329.40 ±239.38	8.78 ±5.42	12.56 ±6.76	17.51 ±10.78
Group IVa: Mothers who have healthy children after age of 35 (n=10)	4 (40.0%)	0 (0.0%)	6 (60.0%)	3 (30.0%)	0 (0.0%)	7 (70.0%)	208.00 ±161.16	5.69 ±3.60	9.21 ±3.41	16.61 ±6.97
Group Ib: The housbands of group Ia (n=24)	11 (45.8%)	3 (12.5%)	10 (41.7%)	9 (37.5%)	5 (20.8%)	10 (41.7%)	255.75 ±86.97	13.64 ±9.03	7.53 ±2.60	11.48 ±6.78
Group IIb: The housbands of group IIa (n=24)	9 (37.5%)	7 (29.2%)	8 (33.3%)	12 (50.0%)	1 (4.2%)	11 (45.8%)	242.54 ±114.63	11.22 ±5.92	6.67 ±2.99	9.00 ±2.40
Group IIIb: The housbands of group IIIa (n=10)	3 (30.0%)	0 (0.0%)	7 (70.0%)	5 (50.0%)	3 (30.0%)	2 (20.0)	220.30 ±65.91	12.52 ±65.91	9.38 ±3.20	9.15 ±2.51
Group IVb The housbands of group IVa: (n=10)	3 (30.0%)	2 (20.0%)	5 (50.0%)	2 (20.0%)	0 (0.0%)	8 (80.0%)	273.30 ±121.03	21.89 ±23.29	9.62 ±5.72	5.27 ±18.43
Children with DS (n=48)	17 (35.4%)	9 (18.8%)	22 (45.8%)	24 (50.0)	4 (8.3%)	20 (41.7%)	405.06 ±345.21	24.79 ±26.27	14.12 ±5.92	15.87 ±7.86
Healthy children (n=20)	8 (40.0%)	2 (10.0%)	10 (50.0%)	7 (35.0%)	3 (15.0%)	10 (50.0%)	242,55 ±103,41	28,73 ±24,25	16,15 ±5,95	5,05 ±32,17

Evaluating the relationship between MTHFR gene C677T and A1298C polymorphisms, Vitamin B6, Vitamin B12, folic acid and homocysteine levels in mothers, fathers, healthy children and children with Down syndrome

of age and it was statistically significant with DS. However Hyc levels were within normal values in other father groups and higher in all mothers except in DSM over 35 years of age which were less higher and statistically significant. There was no significant difference between children with DS and healthy children in terms of MTHFR gene polymorphisms, T allele frequency and Vit-B6, folic acid, Hyc plasma levels. Vit-B12 values were found higher in 25% of the children with DS and a statistically significant difference was found.

Conclusion: Despite all scanning methods in pregnancy, the majority of pregnancies with DS cannot be identified prenatally. The current idea about the complex relationship between folate/hyc metabolism and DS; the diet and life style of mother with maternal and embryonic combinations which including polymorphisms in genes especially in folate metabolism are associated with survival of fetus with DS. However, the maternal age and paternal transfer makes the role of folate metabolism more complicated in having a baby with DS. According to the results of our study, it seems that along with the future studies fathers will have to take the folic acid support in preconception period as mothers to prevent DS.

Keywords: Down syndrome, mother, father, child

[OP-060]

Nifedipine increases foetoplacental perfusion

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Objective: Our aim is to evaluate the effect of nifedipine on foetoplacental haemodynamic parameters.

Material and Methods: A retrospective study was conducted at a tertiary centre with patients for whom nifedipine treatment was decided on for the preterm birth. We combined the pulse Doppler imaging parameters with greyscale imaging via the Bernoulli theorem, which is called the "Continuity Equation", to get the foetoplacental perfusion. Evaluated parameters were the resistance index (RI), the pulsatility index (PI), systole/diastole ratios (S/D), the velocity-time integral of the umbilical artery (VTI), the radius of umbilical artery, the peak systolic velocity and the mean pressure gradient in the umbilical artery. From these parameters, the foetoplacental perfusion was acquired.

Results: We found that the RI, the PI and the S/D ratio did not change after treatment with nifedipine. The mean pressure gradient, the VTI and the peak systolic velocity increased after treatment with nifedipine. VTI, which is the amount of blood passing through a unit area of the umbilical artery per heartbeat, increased statistically from 0.082±0.021 cm2 to 0.100±0.026 cm^2. The amount of blood passing through the umbilical artery per minute (FPP) was 166 beat.cm3 / minute before treatment with nifedipine, which increased to 220 beat. cm^3 /minute after treatment with nifedipine. Nifedipine thus increases the blood flow from the foetus to the placenta.

Conclusion: We found that nifedipine increases the blood flow from the foetus to the placenta. Before treatment with nifedipine, FPP was 166 beat.cm3/minute and after nifedipine treatment it was 220 beat.cm3/minute, with a 24.5% increase in the amount of blood passing through the placenta. However, in previous studies, it has been shown that the mitral valve and tricuspid valve VTI (the foetal-cardiac downstream distribution), which is the amount of blood passing through the cardiac valve per cardiac cycle, did not change after treatment with nifedipine (8). Although the intracardiac valvular blood flow did not change, the umbilical artery blood flow increased. This may result from the complex redistribution of blood flowing in the foetal and placental system. In this complex system, nifedipine increased the placental blood flow. The effects of this increased blood flow from the foetus to the placenta must be studied, especially in growth-restricted foetuses. While decreasing the blood pressure, nifedipine increases the mean pressure gradient, which is the main propulsive force of the blood flow. This can be explained by using the following biophysical formulation. By applying Ohm's Law to the fluid flow, ΔP is the pressure gradient or pressure difference and is the pressure difference between the venous and arterial system, R is the resistance of the vascular system and F is the flow. Flow is calculated in the formula, depicted as(20):

Effect of nifedipine on pulse doppler and hemodynamic parameters of umbilical artery

	Before nifedipine	After 24 hour of nifedipine	P value
UA PI	0.90±0.14	0.92±0.11	0.24
UA RI	0.65±0.12	0.63±0.39	0.53
UA S/D	2.73±0.22	2.67±0.29	0.26
VTI (m)	0.082±0.021	0.100±0.026	0.00#
HR(beat/minute)	145.1±8.2	145±7.8	0.19
UA r (mm)	4.15±0.55	4.35±0.58	0.03#
FPP(beat.cm^3/ minute)	166±73.8	220±83.3	0.01#
MeanPG (mmHg)	0.24±0.15	0.30±0.19	0.03#
PSV (cm/s)	0.30±0.08	0.36±0.09	0.02

Abbreviations: UA PI, Umbilical artery pulsality index; UA RI, Umbilical artey resistance index; UA S/D, umbilica artery systole diastole ratios; VTI, velocity time integral, HR; heart rate; UA r, umblical artery radius; FPP, fetoplacental perfusion; MeanPG, mean pressure gradient; PSV, peak systolic velocity.

$F=\Delta P/R=((PA-Pv))/R$

PA= Arterial pressure

Pv=Venous pressure

R= Vascular resistance

F=Flow

Nifedipine probably decreases pressure to a greater extent in the venous system (PV) than in the arterial system (PA). This increases the pressure gradient (ΔP), and then the blood flow to the placenta.

Keywords: Nifedipine, fetoplacental, perfusion

[OP-061]

Can the gestational diabetes screening predict the preeclampsia?

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Objectives: Our aim was to evaluate patients who underwent OGTT testing in our study population in order to examine maternal charecteristics and associated perinatal outcomes.

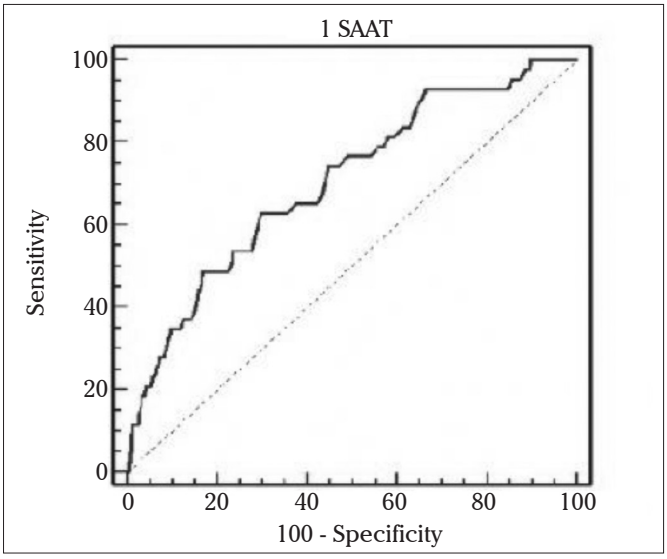

Figure 1. The ROC curve evaluating the effectiveness of 1- hour blood glucose level in preeclampsia prediction (AUC: 0.7, p=0.018)

Table 1. The relationship between 50 gr OGTT and preeclampsia

	Preeclamptic group n:43	Normotensive group n: 583	p
FBG (mg/dL) (m)	83.9	78.2	0.003
1.hour BG (mg/dL) (m)	149.1	122.6	<0.001

FBG: fasting blood glucose; BG: blood glucose; m: mean

Material and Methods: Our study population constituted of 636 pregnant women who underwent OGTT testing at a university affiliated hospital between January 2011 and July 2013. Demographic, perinatal and neonatal results were reported.

Results: According to our results; Group 1 constituted of 464 patients with normal 50 gr OGTT results. Group 2 of 71 patients with elevated 50 gr OGTT results but normal 100 gr OGTT results. Group 3 constituted of 29 patients with elevated 50 gram OGTTT results and one elevated result obtained from the 100 gr OGTT. Group 4 constituted of 62 patients diagnosed with gestationel diabetes. There was a significant difference regarding; age, parity, presence of preeclampsia and polyhidramnios among the groups. Other parameters did not differ among groups.

Conclusion: Even though there are differences among ethnic groups regarding the results of 50 gram OGTT; the tolerance test may be used to predict preeclampsia. Our results revealed a positive correlation between blood glucose levels and onset of preeclampsia. Further studies in this field are warranted.

Keywords: Gestational diabetes mellitus, preeclampsia

[OP-062]

Obstetric outcomes of isolated oligohydramnios during early-term, full-term and late-term periods and determination of optimal timing of delivery

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Objective: Our aim is to evaluate the obstetric outcomes of isolated oligohydramnios during the early-term, full-term, and late-term periods, and to determine the optimal timing of delivery.

Material and Methods: Retrospective study was performed at a tertiary center. Isolated oligohydramnios was divided into early term, full term, and late term. Evaluated outcomes were fetal birth weight, 5 minute Apgar score lower than 7, meconium-stained amniotic fluid, neonatal intensive care unit (NICU) admission, transient tachypnea of newborn (TTN), requirement of ventilator, newborn jaundice, mode of delivery, induction of labor, and undiagnosed SGA before delivery. Composite outcome was defined as perinatal outcomes taken together (NICU admission, TTN, requirement of ventilator, and newborn jaundice).

Results: The study period included 1213 cases of term isolated oligohydramnios. Within this cohort there were 347 early-term, 781 full-term and 85 late-term patients. The caesarean rate and the rate of newborn jaundice were higher in early-term (37.8%, 3.5%) than in full-term cases (30.1%, 0.9%). Meconium-stained amniotic fluid was higher in late-term than full term cases. Timing of delivery did not affect occurrence of TTN, 5 minute Apgar score below 7, ventilator requirement, or composite outcome. Isolated oligohydramnios showed 15% to 17% undetected SGA (Table 1).

Conclusion: The timing of delivery in isolated oligohydramnios is controversial. Generally, delivery is recommended at 37 weeks. However, in our study, we found that early intervention (during early term) did not improve perinatal outcomes when compared to the expectant management of up to 39 weeks. Moreover, early intervention is associated with higher neonatal, post-neonatal and infant mortality rates compared with full term births 20. The rationale of the recommendation for early intervention is undetected IUGR and complications associated with IUGR. We also found that early intervention was associated with a higher caesarean rate and newborn jaundice. In our study, the risk of meconium-stained amniotic fluid and increased rate of caesarean and newborn jaundice was higher in the late-term period. Previous studies have shown that, in term oligohydramnios, any intervention to terminate the pregnancy for fetal well-being increases the caesarean rate without improving perinatal outcomes. However, these studies have accepted the term period as between 37 to 42 weeks. In isolated oligohydramnios, delivery should be recommended during the full term, as early and late interventions are associated with unwanted obstetric complications.

Keywords: Isolated, Oligohydramnios, obstetric outcome

[OP-063]

Comparing neonatal respiratory morbidity in neonates delivered after 34 weeks of gestation with and without antenatal corticosteroid

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Objective: To investigate the effect of antenatal corticosteroid prophylaxis on neonatal respiratory morbidity after 34 weeks of gestation.

Material and Methods: In this retrospective study we evaluated the neonatal respiratory complications of 683 low risk singleton pregnancies delivered at 34-37 weeks of gestation in a tertiary center between Jan 2012 and sept 2014. Exclusion criteria included maternal systemic disease, multiple gestation, major fetal congenital anomaly, evidence of intrauterine infection. The record of all women were divided into two groups: Group 1(n=389)comprised data of woman who empricaly received betamethasone after 34 weeks of gestation for cases at risk of preterm birth, and Group 2 comprised those who did not receive betamethasone(n=294). Demographic characteristics, mode of delivery, fetal birth weight and neonatal respiratory complications was compared between the two groups. Neonatal respiratory morbidity was defined as any respiratory disease that required medical support including supplemental oxygen, nasal continuous positive airway pressure, endotracheal intubation, or exogenous surfactant, with more than 25% oxygen for > 10 minute to maintain neonate oxygen saturation >90% (1)

Results: Mode of delivery, fetal sex, birth weight and gestational week at birth were not different between the groups. The incidence of neonatal respiratory morbidity was similar (15,3% in the control group and 14,9% in the intervention group; p=0.88). When infants grouped according to development of neonatal respiratory morbidity, there were no statistically significant differences with regard to the mothers age, mode of delivery and indications of cesarean section in cases with and without neonatal respiratory morbidity. There was no statistical difference for neonatal respiratory morbidity development rate between cases received betamethasone or those with not received. The number of betamethasone intervention or interval between intervention and delivery were similar in cases with and without neonatal respiratory morbidity.

Conclusion: There is no beneficial effect of betamethasone administration empiricaly after 34 weeks of gestation for preventing neonatal respiratory morbidity

Keywords: Neonatal respiratory morbi dity, corticosteroid administration, after 34 weeks of gestation

[OP-064]

Skin incision lengths in caesarean section

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Objective: This study aims to examine the factors affecting skin incision lengths in caesarean section.

Material and Methods: We enrolled 201 pregnant women who delivered by caesarean section. Skin incision lengths in caesarean section were measured with a ruler on the first postoperative day. We categorized the patients into two groups, where group 1 had their caesarean sections performed by senior residents and group 2 by specialists. Demographic patient data, estimated fetal weights, and skin incision lengths were calculated.

Table 1. Demographic charecteristics for all patients

Characteristics	Mean±Sd	Min-Max	25%	75%
Age (Years)	28.7±4.7	18-39	21	31
BMI (kg/m²)	25.2±4.3	14.9-39.7	21.9	28.3
Gravidity	2.2±1.0	1-6	2	3
Parity	1.0±0.7	0-4	1	1
Estimated Fetal Weight (g)	3315±425	2500-4922	2990	3581
Incision length (mm)	156.9±14	127-195	146	165

BMI: Body mass index, The results are expressed as means ± Standard Deviation (S.D.)

Table 2. Demographic charecteristics for subgroups

Characteristics	Group 1 (Residents) (n:96)	Group 2 (Specialists) (n:105)	p value
Age	28.6±4.6	28.7±4.1	NS
BMI (kg/m²)	25.1±4.3	25.3±4.3	NS
Gravidity	2.3±1.0	2.2±1.0	NS
Parity	1.0±0.7	1.0±0.7	NS
Estimated Fetal Weight (g)	3307±377	3322±466	NS
Incision length (mm)	159.5±13.1	154.5±14.8	<0,05

BMI: Body mass index, The results are expressed as means ± Standard Deviation (S.D.)

Results: Patients age was 28.7±4.7 years, gravidity was 2.2±1.0, parity was 1.0±0.7, body mass index (BMI) was 25.2±4.3, and estimated fetal weight was 3,315±425 g. Skin incision lengths were 156.9±14, 159.5±13.1, and 154.5±14.8 mm for all surgeons, only senior residents and only specialists, respectively. Skin incision length was correlated with fetal weight, maternal BMI, gravidity, and parity (p<0.001). In additions, skin incisions made by specialists were smaller skin than those made by residents (p=0.011) (Table 1 and Table 2)

Conclusion: Surgical experience is not the only factor affecting the skin incisions in caesarean section; fetal weight, maternal BMI, gravidity, and parity also affect skin incision length.

Keywords: Caesarean section, Pfannenstiel incision, Skin incision length

[OP-065]

Ultrasound-guided versus classic surgical transversus abdominis plane block in obese patients following caesarean section: a prospective randomised study

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Objective: The classic transversus abdominis plane block (TAP), commonly used for post-operative analgesia following lower abdominal surgery, and involves blockade of the T7-L1 intercostal, subcostal, ilioinguinal and iliohypogastric nerves that provide sensory innervation to the abdominal wall. The technique involves analgesic agent introduction into the lateral abdominal wall and between the internal oblique and transversus abdominis muscles (termed as TAP). The classic blind method is associated with several complications therefore, it has been replaced by ultrasound-guided (USG) TAP. However, serious technical difficulties, similar to those reported for classic TAP block, have been reported with the use of USG-TAP, particularly in obese patients. The surgical TAP block, a novel technique, can be performed safely in obese patients in whom muscle layers cannot be sufficiently exposed. Here, we compared applicability, efficacy and complications of surgical TAP and USG-TAP blocks in obese pregnant women following caesarean section under general anaesthesia.

Material and Methods: Seventy-five pregnant women with pre- and post-pregnancy body mass index (BMI) >30 were randomised and divided into two groups: USG-TAP block (UT group; n = 38) and surgical TAP block (ST group; n = 37). The USG probe was inserted between the costal margin and iliac crest; a 20-gauge 150-mm regional anaesthesia needle was advanced at the same level as the USG probe using an in-plane technique after visual confirmation of three muscle layers (external oblique, internal oblique and transversus abdominis). Than, 20 mL of 0.25% bupivacaine was administered (Figure 1). The ST group, received the block procedure after uterus closure and haemostasis. Following palpation of the lateral margin of the rectus muscle and inferior epigastric vessels by the surgeon using an elevator, a needle was advanced through the parietal peritoneum and transversus abdominis muscle. Following transversus abdominis muscle fascia puncture, 20 ml of 0.25% bupivacaine was intra-abdominally injected into the TAP at the midpoint of the line connecting the crista iliaca and inferior costal margin (Figure 2). Visual analogue scale (VAS) scores at post-operative 0, 2, 6, 12 and 24 h, time to first analgesic requirement, total analgesic consumption amount in 24 h, post-operative side effects, complications and patient satisfaction were recorded.

Results: Age, American society of Anesthesiologist (ASA) score, operative duration, mean time to first analgesic requirement and total analgesic consumption in 24 h were similar between groups. Block procedure durations were 7 and 10 min in ST and UT groups, respectively (Table 1). Statistically significant increases in BMI were observed during pregnancy in both groups. (P< 0.01). No significant differences in VAS scores were observed between the groups at all times (p > 0.05 for all). No patients developed complications.

Conclusion: USG and surgical TAP blocks were safe and had similar efficacy in providing post-operative analgesia in obese pregnant women following caesarean section under general analgesia. Therefore, our study's results demonstrate that surgical TAP block is an efficacious, safe and rapid technique, particularly in patients in whom sensory blockade is technically challenging, and does not require additional equipment.

Keywords: Analgesia, Caesarean section, Pregnant women, Transversus abdominis plane block, Visual Analogue Scale

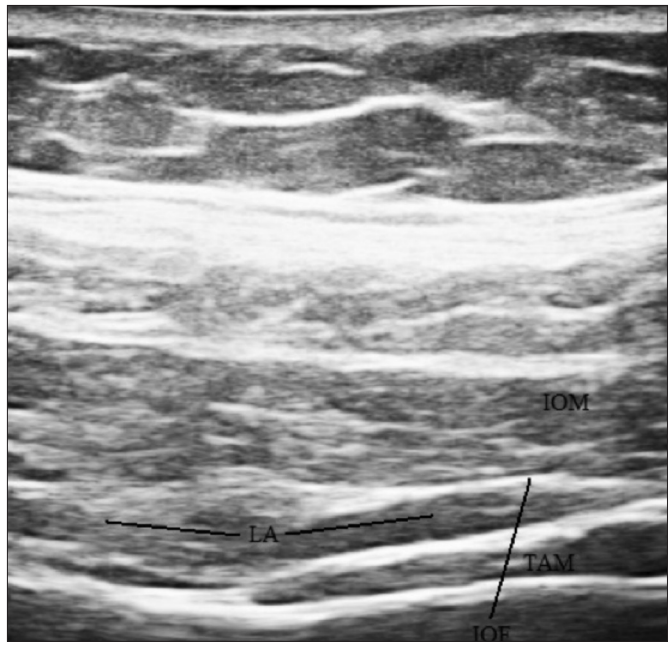

Figure 1. Spread of local anaesthetic (LA) within the transversus abdominis plane between the IOM and TAM following injection and downward displacement of the IOF (USG-TAP block)

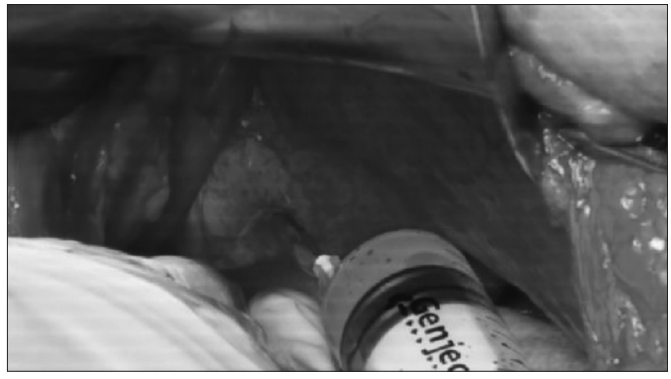

Figure 2. Intra-abdominal access of a blunt-ended needle into the transversus abdominis plane through the transversus abdominis muscle (surgical TAP block)

Table 1. Age, ASA, operative duration, block procedure time, time to first analgesic requirement and satisfaction values of patients according to study group

	STB n=37	UTB n=38	p value
Age	30.2±5.17	29.4±5.41	0.490
ASA	2 (2-1)	2 (2-1)	0.628
Operative duration (min)	40.2±2.66	40.5±2.81	0.716
Block procedure time (min)	7 (10-4)	10 (12-8)	<0.001
Time to first analgesic requirement (min)	513.2±102.78	476.6±125.59	0.168
Total analgesic consumption in 24 h (mg)	91.1±34.00	96.9±46.38	0.539
Patient satisfaction	9 (10-5)	9 (10-4)	0.962

[OP-066]

Evaluation of the relationship between sTWEAK (TNF-related weak inducer of apoptosis) levels and first trimester vaginal bleeeding in pregnant women

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Objective: Vaginal bleeding is a serious complication of the first trimester with a rate of 7-25%. But the exact etiology of vaginal bleeding is still not identified. Tumor Necrosis Factor (TNF)-related weak inducer of apoptosis (TWEAK), is a cytokine related to TNF superfamily and CD163 is newly described as an alternative soluable receptor for circulating sTWEAK. In this study we aimed to study the relationship between vaginal bleeding and sTWEAK, sCD163 levels and sTWEAK/ sCD163 ratio and their effects on perinatal outcomes.

Material and Methods: Seventy (41 in abortus imminens and 29 in control group) gestational age matched (6-14 weeks) pregnant women who were attended to Obstetrics and Gynecology Departments of Muğla Sıtkı Koçman University and İzmir Tepecik, Training and Research Hospitals between April-July 2015 were included. Maternal sTWEAK and sCD163 levels were evaluated by ELISA kits (eBioscience, An Affymetrix Company, Austria for sTWEAK; Human sCD163 ELISA Ready-SET Go! eBioscience Products for sCD163). Antenatal complications (gestational diabetes, preeclampsia, intrauterine growth restriction, oligohydramniosis, polyhydramniosis), perinatal outcomes (delivery mode, birth weight, delivery week) were recorded. Women with vaginal bleeding were subgrouped as miscarriage/alive birth and having subchorionic hematoma or not. Statistical analysis were performed by using Student's t-Test, Mann Whitney U Test, Chi-Square Test and Pearson Correlation Test. P<0.05 was considered as statistically significant.

Results: There were no statistically significant diffecerences by means of sTWEAK, sCD163 levels and sTWEAK/ sCD163 ratio and antenatal complications between abortus imminens and control group. But higher sTWEAK levels were significantly related to higher rates of miscarriage in abortus imminens group (P=0.014). sCD163 levels were significantly lower in subchorionic hematoma subgroup of abortus imminens group (P=0.043). (Table 1,2,3,4,5)

Conclusion: TWEAK is a transmembrane glycoprotein of TNF superfamily and produced in many tissues like pancreas, heart, brain, liver and ovary. sCD163 was reported to be expressed on endometrial glands and surface epithelium during proliferative and luteal phase. TWEAK/CD163 interaction was also reported to regulate inflammation. This intearction was thought to act on hormonal changes during pregnancy besides the effects on cell growth and survival. Since CD163 was reported to have ovarian steroid related modulation on IL 18 expression in sheep endometrial epithelial cells, estrogen/ progesteron dependent decreases in IL-18 levels in maternal-fetal surface was thought to be responsible for the survival of pregnancy. We hypothesized that sTWEAK and CD163 levels might have relation with pregnancy outcomes in patients having first trimester vaginal bleeding. According to results of our study, the difference of sTWEAK, sCD163 levels and TWEAK/CD163 ratio were not statistically significant between groups. But sTWEAK levels were significantly higher in miscarriage subgroup af abortus imminens group. This is the first study in the literature reporting a relationship between the outcome of pregnancy and sTWEAK levels. This evidence might be the preliminary steps of improving protocols for prevention and treatment of vaginal bleeding patients with high risk of miscarriage. Prospective studies with extended number of patients were required to identify the role of sTWEAK in this mechanism.

Keywords: Perinatal outcome, pregnancy, sCD163, sTWEAK, vaginal bleeding

Table 1. sTWEAK and CD163 levels and sTWEAK/CD163 ratio in miscarriage and alive birth subgroups of thretaned abortion group

	Miscarriage	Alive birth	P value
sTWEAK (pg/mL)	690.4 (368.4-1205.4)	513.9 (297.4-854.4)	0.014
CD163 (ng/mL)	660.7±260.9	691.5±357.4	0.797
sTWEAK/ CD163	1.2±0.5	0.9±0.4	0.158

Median (min-max), Mann Whitney U-test was used for statistical analysis, Mean (±SD), Student's t test was used for statistical analysis. *p<0.05 was considered statistically significant

Table 2. sTWEAK and CD163 levels and sTWEAK/CD163 ratio in subchorionic hematoma subgroups of threatened abortion group

	Subchorionic hematoma (+)	Subchorionic hematoma (-)	P value
sTWEAK (pg/mL)	562.4 (297.4-854.4)	533.2 (349.4-1205.4)	0.969
CD163 ng/mL (ng/mL)	565.6±219.8	775.3±377.1	0.043*
sTWEAK/ CD163	1.1±0.5	0.9±0.4	0.157

Median (min-max), Mann Whitney U-test was used for statistical analysis, Mean (±SD), Student's t test was used for statistical analysis. *p<0.05 was considered statistically significant

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[OP-067]

Comparison of systemic and local methotrexate treatments in cesarean scar pregnancies: time to change conventional treatment and follow-up protocols

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Objective: The aim of this study was to compare the systemic and local methotrexate (MTX) in the treatment of cesarean scar pregnancies (CSP).

Material and Methods: In this retrospective cohort study, we collected data of 44 patients with CSP. The patient were grouped according to reatment modality; Group 1: local MTX injection (n: 17) and, Group 2: systemic MTX (n: 27). Systemic multidose protocol included administration of 1mg/kg four doses of MTX, altering with 0,1 mg/kg leukoverin injection intramusculary. Local MTX injection protocol was applied the gestasyonel sac was punctured and aspirated using transvaginal ultrasound guide and 16 G, oocyt pick- up double- lumen aspiration needle (Swemed Med, Follicle Aspiration Needle, 1,5x350 mm, double lumen, tubing 1000-1000, Vitrolife). After aspiration 50 mg MTX instilled slowly into the gestasyonel sac. The groups were compared with respect to side-effects, recovery time, reproductive outcome and cost.

Results: The mean gestational age at diagnosis (6.4±0.93 vs 5.4±0.80 weeks, p= 0.001), the pretreatment serum β-human Chorionic Gonadotrophin (β- hCG) level [27970 (11010-39421)vs.7606 (4725-16996) mIU/mL p= 0.001], the lesion size (2.74±1.36 and 1.28±0.55cm p= 0.001) were higher in Group 1. All patients were cured by primary theraphy without additional surgery. The mean times for β-hCG normalization, the uterine mass disappearance were significantly shorter in Group 1 than Group 2 (6.17±1.55 vs 8.11±2.0 weeks p=0.001and 10.47±4.14 vs 13.40±4.44 weeks, p=0.002, respectively). The cost of treatment was similiar between groups (281.133±112.123 $ vs 551.134±131.792 $p=0.76). The total pregnancy rates were not different between groups (5/16, 31,4% vs. 6/11, 54.6%, p=0.301). There was one reccurent CSP that occured after sytemic MTX. The most common side effect was oral ulcers that were seen in seven patients in Group 2.

Conclusion: Though treatment success and reproductive outcome are similiar, local MTX is superior to systemic MTX with regard to recovery time, side effect and cost, even in patients with unfavorable pre-treatment prognostic predictors. According to our results, conventional treatment and follow- up protocols of local and systemic MTX should be revised.

Keywords: Cesarean scar pregnancies, methotrexate, local injection

Table 1. Comparison of demographic and pre-treatment clinical parameters between groups

	Local injection (mean±SD)	Systemic administration (mean±SD)	P value
Age(years)	32.76±5.25	31.07±4.17	0.243
BMI(kg/m^2)	25.83±2.16	25.77±4.85	0.933
Gravidity (times)	3.17± 0.80	2.96±0.89	0.430
Parity (times)	1.52±0.51	1.70±0.72	0.393
Cesarean sectio(times)	1.4±0.51	1.6±0.62	0.387
Gest age(weeks)	6.4±0.93	5.4±0.80	0.001
Pretreatment serum β-hCG level (mIU/mL)	27970 (11010-39421)	7606 (4725-16996)	0.001
Gestasyonel Sac size(cm)	2.74±1.36	1.28±0.55	0.0001
Interval between current CSP and last cesarean (months)	39.05±12.69	39.25±15.96	0.965
Positive heart beath	17/17(%100)	10/27(37%)	0.0001

BMI:Body Mass Index

Table 2. Clinical and reproductive outcomes of local injection and systemic administration of MTX

	Local injection n:17	Systemic administration n:27	P value
Time for serum β-hCG remission (weeks)	6.17±1.55	8.11±2.0	0.001
Time for uterine mass disappearance (weeks)	10.47±4.14	13.40±4.44	0.002
Hospitalization time (days)	7.05 ±2.77	11.96±4.02	0.0001
Cost of treatment ($)	281.133±112.123	551.134±131.792	0.76
Overall cure rate (%)	%100	%100	1
Clinical pregnancy rate	6/11(54.6%)	5/16(31.4%)	0.301
Interval from CSP to subsequent pregnancy (month)	12.16±2.85	14.2±3.89	0.344
Recurrens CSP rate	0/17(0%)	1/27(6.3%)	1
Live birth rate	4/11(%36.4)	3/17(18.8%)	0.438

CSP: Cesarean scar pregnancy

[OP-068]

YKL-40 immunoreactivity in placenta creta

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YKL-40 is named human cartilage glycoprotein-39 and it is a kind of fibroblast growth factor. This protein was proposed to be a factor in the proliferation and differentiation of malignant cells, extracellular tissue remodeling, neovascularization, and the prevention of cancer cells apoptosis. In addition, it is also believed to stimulate the fibroblasts surrounding the tumor. The Objective of this study was to evaluate YKL-40 tissue expression in placenta creta and its possible correlation with the degree of placenta creta. A total of 35-placenta creta and 6 control cases were identified, of which 8 cases were placenta accreta, 12 increta and 15 percreta. YKL-40 staining was scored in tissue as weak (1), medium (2) and strong (3). The YKL-40 immunoreactivity intensity in percreta group was significantly higher (2.47±0.74) when compared to the increta and acreta groups (1.33±0.49 and 1.37±0.52, respectively; p=0.000). YKL-40 immunoreactivity intensity was also positively correlated with creta (r=0.6, p=0.000), Depth of invasion (r=0.49, p= 0.003) and Depth of invasion / full thickness ratio (r= 0.58, p= 0.000). In conclusion, this study has documented YKL-40 is strongly expressed in percreta and correlated with extravillous trophoblast invasion. These findings may provide benefit to enlighten pathophysiology of creta.

Keywords: Placenta creta, YKL-40, extravillous trophoblast

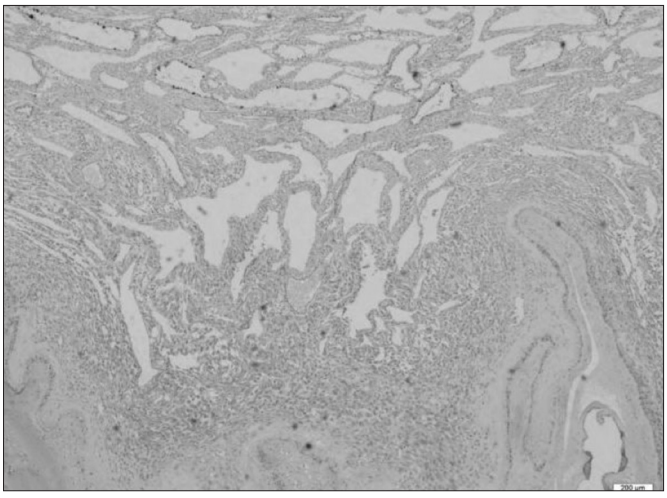

Figure 1. +1 intense staining patern in a placenta acreta

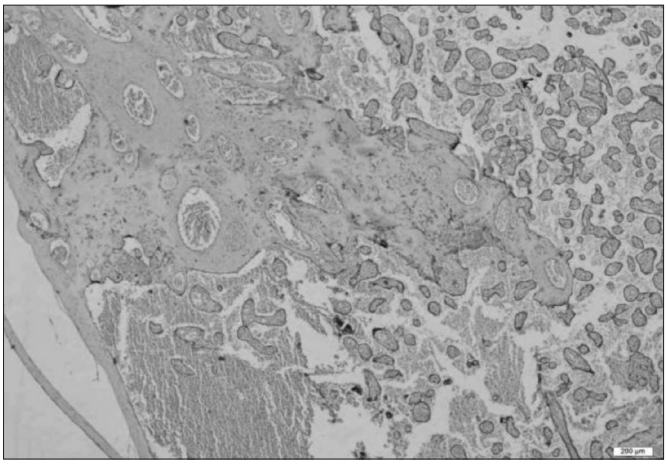

Figure 2. +3 intense staining patern in a placenta percreta

[OP-069]

MR pelvimetry in women with sickle cell anemia and sickle cell trait

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Objective: The cesarean delivery rate tends to be higher in women with sickle cell anemia (SCA) and sickle cell trait (SCT) for various reasons. However, pelvic narrowing, which may lead to cesarean sections, has never before been studied in these groups. The aim of this study was to investigate magnetic resonance (MR) pelvimetry findings of women with SCA and SCT.

Material and Methods: We studied 66 women who underwent MR pelvimetry between March and June 2015 at our center. Our prospective study included 21 women with SCA, 20 women with SCT, and 25 control women. Sagittal inlet, sagittal mid-pelvis, transverse inlet, transverse mid-pelvis, and transverse outlet diameters were measured. The mean diameters were compared with each other and with the control group.

Results: The mean ages of women with SCA, women with SCT, and control group women were 28.57, 30.25, and 28.36 years of age, respectively. The pelvimetric parameters did not show significant differences among groups including women with SCA, women with SCT, and control group women.

Conclusion: Our study demonstrated that the pelvic roofs of women with SCA and SCT are indistinguishable from healthy women. Thereby, maternal pelvic structures that impact delivery types may not be significantly changed by SCA and SCT diseases.

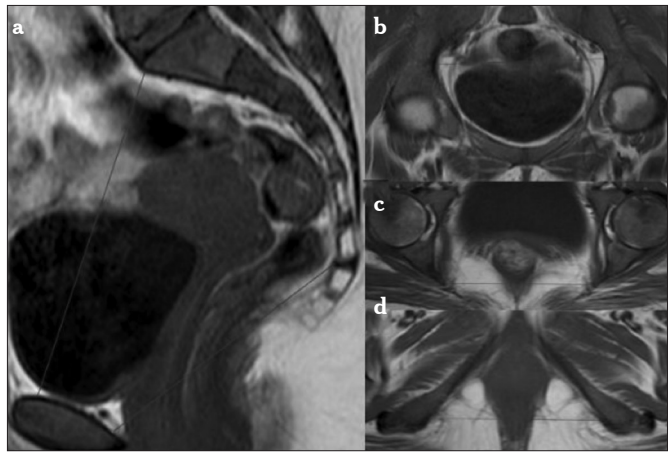

Figure 1. T1-weighted spin-echo MR pelvimetric images. Sagittal, midline section (a), show sagittal inlet (obstetric conjugate) and sagittal mid-pelvis distance. Oblique axial section (b), shows transverse inlet distance. Axial sections (c) and (d), show tra

Keywords: Magnetic resonance; pelvimetry; sickle cell anemia; sickle cell trait; women

[OP-070]

How normal is 'normal'? validation of normal 75g OGTT results by neonatal outcomes

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Objective: The study was performed to investigate the impact of different 75g OGTT (oral glucose tolerance test) target ranges within normal limits on neonatal outcomes and thereby to determine the validity of 75g OGTT thresholds.

Material and Methods: For this observational study, 110 pregnant women, at 24-28 weeks of gestation, who attended our outpatient

Table 1. Neonatal outcomes of groups according to different 75g-OGTT 1h ranges within normal limits

	Group 1 N=50	Group 2 N=32	Group 3 N=18	Group 4 N=10	P
OGTT 1-h cut-off (mg/dL)	<120	(120-139)	(140-159)	(160-180)	
Neonatal hypoglycemia	5 (10)	1(3.1)	0 (0)	0(0)	0.266
Neonatal hyperbilirubinemia	13 (26)	13 (40.6)	7 (38.9)	2 (20)	0.394
NICU admission	7 (14)	5 (15.6)	3 (16.7)	3 (30)	0.665
SGA	8 (16)	11 (34.4)	1 (5.6)	0 (0)	0.019a,b
LGA	5 (10)	5 (15.6)	2 (11.1)	1 (10)	0.886
Birth Weight (g)	3296.9±527.5	3305.1±592.5	3316.9±659.1	3653.5±348	0.313
Abnormal Result	23 (46)	23 (71.9)	9 (50)	4 (40)	0.098

Values are expressed as Mean±SD or N (%). OGTT: oral glucose tolerance test, NICU: neonatal intensive care unit, SGA: small for gestational age, LGA: large for gestational age. a:group 2 vs group 3 p<0.05 b:group 2vs group 4 p<0.05

Table 2. Neonatal outcomes of groups according to different 75g-OGTT 2h ranges within normal limits

	Group 1 N=82	Group 2 N=14	Group 3 N=10	Group 4 N=4	P
OGTT 2-h cut-off (mg/dl)	<120	(120-134)	(135-149)	(150-153)	
Neonatal hypoglycemia	3 (3.7)	2 (14.3)	0 (0)	1(25)	0.104
Neonatal hyperbilirubinemia	26 (31.7)	6 (42.9)	2 (20)	1 (25)	0.678
NICU admission	13 (15.9)	3 (21.4)	2 (20)	0 (0)	0.763
SGA	14 (17.1)	5 (35.7)	1 (10)	0 (0)	0.231
LGA	10 (12.2)	1 (7.1)	1 (10)	1 (25)	0.800
Birth Weight (g)	3328±555.8	3141.7±642	3532.5±409	3660±544.2	0.234
Abnormal Result	43 (52.4)	11 (78.6)	4 (40)	1 (25)	0.132

Values are expressed as Mean±SD or N (%). OGTT: oral glucose tolerance test, NICU: neonatal intensive care unit, SGA: small for gestational age, LGA: large for gestational age

antenatal clinic and diagnosed to have no GDM (gestational diabetes mellitus) by using 75g OGTT were enrolled after obtaining written informed consent from all participants. The diagnosis of the GDM was made according to the IADPSG/ADA (International Association of the Diabetes and Pregnancy Study Groups/ American Diabetes Association) criteria, when any of the following plasma glucose values are exceeded: fasting >= 92 mg/dl, 1h: >= 180 mg/dl, 2h: 153 mg/dl. The exclusion criteria included women with GDM, pre-gestational DM, hypertension, multiple pregnancies and fetal anomalies.

The normal 1-hour and 2-hour ranges of 75 gr OGTT were further divided into four different sub-groups; for the 1-hour as group 1 (< 120 mg/dl), group 2 (120-139 mg/dl), group 3 (140-159 mg/dl) and group 4 (160-180 mg/dl) and for the 2-hour as group 1 (< 120 mg/dl), group 2 (120-134 mg/dl), group 3 (135-149 mg/dl) and group 4 (150-153mg/dl). Neonatal outcomes were compared between these new range groups. All data were analyzed using Statistical Package for Social Sciences (SPSS) for Windows, Version 22 (IBM Corp, Armonk, NY) and p values <0.05 were considered to be statistically significant. Continuous variables are presented as mean±SD and categorical variables as numbers and percentages. For the analysis of qualitative data, chi-square test was used. For the analysis of quantitative data, one-way ANOVA (posthoc Tukey) and Kruskal Wallis tests were used.

Results: The number and percentage of the subjects were 50 (45.5 %), 32(29.1%), 18 (16.4%) and 10 (9.1) for the first hour and 82 (74.5 %), 14 (12.7%), 10 (9.1 %), and 4 (3.6%) for the second hour, for groups 1-4, respectively.

For the 1 hour results, there was no statistically significant difference between groups in terms of neonatal hypoglycemia, hyperbilirubinemia, intensive care unit admission, birth weight, abnormal result and LGA (large for gestational age) rates; however, the rate of SGA (small for gestational age) infants was statistically significantly higher in group 2 compared to those in groups 3 and 4. As for the 2 hour statistically similar results were found between the groups (p> 0.05).

Conclusion: In conclusion, this study demonstrates 75g OGTT (IADPSG/ADA) has reliable threshold values for GDM screening as the neonatal outcomes do not differ between the low normal and high normal levels of the first and second hour test results and provides evidence that there are still adverse neonatal outcomes in women with OGTT results below the current thresholds and the study also reports a higher number of SGA in the glucose range 120-139 mg/dl of the first hour which needs further evaluation. As a result, the validity of the 75g OGTT thresholds still needs to be investigated and verification by large studies is needed.

Keywords: Gestational diabetes mellitus, glucose tolerance test, neonatal outcome

[OP-071]

Serum and placental levels of milk fat globul epidermal growth factor-8, osteoprotegerin and suppressor of cytokine signaling-3 receptor in pregnant women with preeclampsia, and their relation with severity of disease

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Objective: Preeclampsia is a specific disease and closely associated with systemic inflammatory response. The aim of this study is to research the possible role of some inflammatory factors and the inflammation controlling factor in the etiology of preeclampsia or reflection of this situation on placental tissue. Three parameters were included in the study regarded as potential risk factors: Milk Fat Globul Epidermal Growth Factor-8 (MFG-8); is an endometrial epithelial protein and regulates inflammation and apoptosis. MFG-8 is important in the development of endometrium and chorionic villus. Osteoprotegerin (OPG); is a pro-angiogenic factor and important for placental angiogenesis. Suppressor of cytokine signaling-3 Receptor (SOCS-3) plays role on prevention of the inflammation.

Material and Methods: The study population was consisted of 40 preeclamptic pregnants and 50 healthy, gestational–age matched pregnants with no history of preeclampsia (control group). Prepartum serum samples and postpartum placental tissue samples were used as materials. We analysed serum OPG, MFG-8 and SOCS-3 levels and placental MFG-8 and SOCS-3 levels with ELISA (Enzyme-Linked Immuno Sorbent Analysis) method and findings were evaluated comparatively.

Results: The mean age and body mass index of all women in the study were 28.2±6 years and 26.6±3.4 kg/m2 respectively. Delivery week, birth weight and apgar1 score were statistically lower in preeclamptic group compared to those in control group. In preeclamptic group, serum OPG levels raised and showed statistically significant difference with respect to control group ($p<0.01$). There was no significant difference between groups for serum levels of MFG-8 and SOCS-3. Placental MFG-8 levels were significantly low in preeclamptic group compared to control group and there was no significant difference between groups for placental levels of SOCS-3. Serum MFG-8 levels showed positive correlation with both of blood pressure ($R= 0.23$, $p=0.03$) and proteinuria severity ($R= 0.29$, $p<0.01$). In regression analysis, only serum MFG-8 levels showed influence on blood pressure (OR=0.3, 95%CI= 0.001- 0.005, $p<0.01$) and this influence was minimal. Serum MFG-8 levels showed negative correlation with both of apgar1 score ($R=0.24$, $p=0.02$) and birth weight ($R=0.25$, $p=0.01$). serum MFG-8 levels showed minimal influence on birth weight (OR=0.24, 95%CI= 0.009- 0.09, $p=0.02$).

Conclusion: We observed significantly decreased placental MFG-8 and increased serum OPG levels in preeclamptic pregnants compared to controls. And serum MFG-8 levels showed influence on blood pressure and birth weight. Our results must be discussed with further studies.

Keywords: MFG-8, preeclampsia, OPG, SOCS-3

OP-072]

What is the ideal cutoff in screening for gestational diabetes mellitus in twin pregnancies

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Objective: The objective of this study was to determine the ideal cut-off in plasma glucose levels in screening for gestational diabetes mellitus (GDM) in twin pregnancies.

Material and Methods: In this retrospective study, a total 311 twin pregnancies were identified from hospital database from 2007 to 2016. A 50 gram oral glucose challenge test (GCT) was performed at 24–28 weeks' gestation. In those with a GCT of >=130 mg/dL underwent a 3-hour, 100-g oral glucose tolerance test (GTT). The diagnosis of GDM was made if 2 of the 4 values on the oral glucose tolerance test were abnormal (Carpenter and Coustan). The screening results of the GCT was evaluated with ROC curve analysis to obtain a complete sensitivity/specificity at different cut-off points. We excluded all patients with pre-gestational diabetes and GDM diagnosed before 24 weeks of gestation.

Results: A total 311 patients with twin pregnancies underwent a GCT between 24-28 weeks. The positive screen rate was 32.5%. The incidence of GDM was 7.1%. The ROC analysis showed that a GCT cutoff of >135 mg/dL maintained 100% sensitivity, with a specificity of 78.2%. The positive predictive value was 22.9% and the negative predictive value was 100%. Area under ROC curve (AUC) was 0.948. Compared to a cutoff of >=130 mg/dL, a cutoff of >135 mg/dL resulted in 5.1% less patients testing positive while maintaining the same 100% sensitivity.

Conclusion: In twin pregnancies screening, a 50 gram GCT cutoff appears to be >135 mg/dL.

Keywords: Twin pregnancy, gestational diabetes mellitus, screening

[OP-073]

Evaluation of preeclampsia severity by examining the placenta with acoustic radiation force impulse elastography

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Objective: We aimed to detect the contribution of the measurement of placental shear wave velocity (SWV) by acoustic radiation force impulse (ARFI) imaging to the diagnosis of preeclampsia and to de-

Figure 1. The ROI (box) was placed at the center of the anterior placenta in preeclampsia. The placental elasticity value was 1.50 m/s

Table 1. Comparison of the preeclampsia group and the control group with the Mann–Whitney U test

Parameters	Patients Group	Control Group	p
Age (year)	32.3±6 (19-43)	31.9±6 (20-47)	0.7
SWVmin (m/s)	1.00±0.10 (0.83-1.32)	0.74±01 (0.50-1.12)	< 0.01
SWVmax (m/s)	1.88±0.25 (1.45-2.53)	1.5±0.47 (1.08-2.10	< 0.01
SWVmean (m/s)	1.42±0.10 (1.29-1.62)	1.09±0.16 (0.80-1.75)	< 0.01
UmbRI [(systolic - diastolic)/systolic]	0.94±0.16(0.73-1.53)	0.66±0.07 (0.43-0.78)	< 0.01
UmbPI [(systolic - diastolic)/mean]	1.12±0.23(0.77-1-80)	0.83±0.15(0.61-1.30)	< 0.01
UtRI [(systolic - diastolic)/systolic]	0.83±0.11(0.69-1.17)	0.58±0.17 (0.35-1.16)	< 0.01
UtPI [(systolic - diastolic)/mean]	0.99±0.32 (0.49-1.76)	0.80±0.21 (0.45-1.29)	< 0.01
Gestational Age (week)	30.8±4 (23-36)	30.5±4 (23-37)	0.7
Pl.Thickness (mm)	38.6±4 (27-47)	40.3±5 (29-49)	0.1

Values were described as mean ± SD, Pl.thicknes:Placenta thicknes, SWVmin:minimum shear wave velocity, SWVmax: maximum shear wave velocity, SWVmean: mean shear wave velocity, Umb.PI: umblical pulsalite index, Umb.RI: umblical resistivite index, Ute.PI: uterin pulsalite index, Ute.RI: uterin resistivite index.

termine the relationship between preeclampsia severity and SWV values.

Material and Methods: A total of 86 pregnant women were included in our study; 42 constituted the pregnant patient group with preeclampsia and 44 made up the healthy pregnant group. Based on revised American College of Obstetricians and Gynecologists criteria, the patient group was divided into two subgroups: severe preeclampsia and mild preeclampsia. Both groups were subjected to placental SWV values were measured by ARFI elastography.

Results: When SWVmin, SWVmax, and SWVmean values of the patient group with preeclampsia and the control group were compared, all values in the patient group were significantly higher than those of the control group. When SWV values of mild preeclampsia and severe preeclampsia subgroups were compared, SWVmin, SWVmax, and SWVmean values were significantly higher in the severe preeclampsia pregnant group.

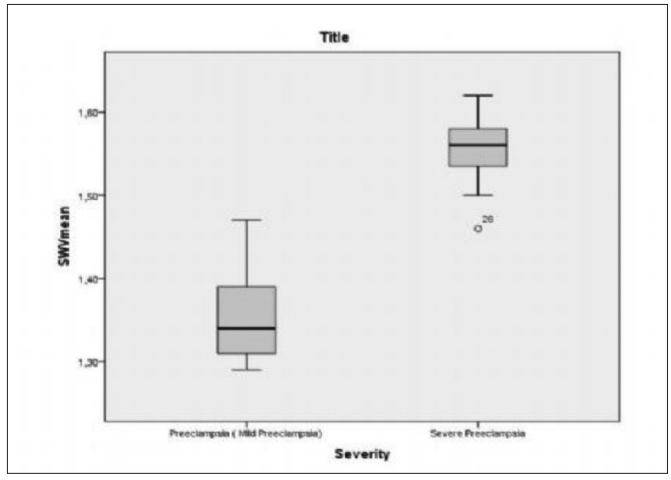

Figure 2. Comparison of mean renal shear wave velocity values between mild preeclampsia and severe preeclampsia

Table 2. Comparison of mild preeclampsia and severe preeclampsia groups, defined according to American College of Obstetricians and Gynecologists (ACOG) criteria, with the Mann–Whitney U test

Parameters	Mild preeclampsia	Severe Preeclampsia	p
Age (year)	32.2±6 (19-43)	32.6±6 (24-43)	0.9
SWVmin (m/s)	0.97±0.10 (0.83-1-32)	1.07±05 (0.95-1.17)	< 0.01
SWVmax (m/s)	1.77±0.17 (1.45-2.15)	2.11±0.23 (1.74-2.53)	< 0.01
SWVmean (m/s)	1.35±0.05 (1.29-1.47)	1.55±0.04 (1.46-1.62)	< 0.01
UmbRI[(systolic - diastolic)/systolic]	0,92±0.12 (0.77-1.33)	0.97±0.22 (0.73-1.53)	0.8
UmbPI[(systolic - diastolic)/mean]	1.14±0.21(0.77-1.45	1.07±0.27(0.87-1.80)	0.1
UtRI[(systolic - diastolic)/systolic]	0.84±0.13(0.69-1.17)	0.81±0.06(0.72-0.96)	0.6
UtPI[(systolic - diastolic)/mean]	1.00±0.24(0.64-1.48)	0.96±0.44(0.491.76)	0.5
Gestational Age (week)	31±4 (23-37	30±4 (25-36)	0.4
Pl.Thickness (mm)	38.5±4	39±4	0.4

Values were described as mean ± SD, Pl.thicknes:Placenta thicknes, SWVmin:minimum shear wave velocity, SWVmax:maximum shear wave velocity, SWVmean:mean shear wave velocity, Umb.PI:umblical pulsalite index, Umb.RI:umblical resistivite index, Ute.PI:uterin pulsalite index, Ute.RI:uterin resistivite index.

Conclusion: Measuring placental SWV values with ARFI imaging is a useful method in the diagnosis and follow-up of preeclampsia. It can also be used as an additional method to detect the severity of preeclampsia.

Keywords: Preeclampsia, severe preeclampsia, ARFI elastography, placenta

[OP-074]

The prognostic value of first-trimester cystatin C levels for gestational complications

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Objective: This study is designed to evaluate predictive value of first-trimester cystatin C levels for long-term pregnancy complications.

Material and Methods: The cross-sectional study population consisted of patients who admitted to outpatient clinic of a Maternity Hospital between September 2013 and December 2014. Among the 203 participants who accepted to participate in the study, 174 subjects who continued antenatal follow-up in the same clinic were included in the final analyses. Cystatin C, blood urea nitrogen, Creatinine levels and estimated glomerular filtration rates were evaluated in the first-trimester routine antenatal visit. Mode of delivery and gestational complications were noted.

Results: First-trimester cystatin C levels were significantly higher in cases complicated with preterm delivery and premature rupture of membrane (PROM) compared to uncomplicated ones (0.58±0.07 vs. 0.55±0.07, P=0.041, and 0.58±0.07 vs. 0.55±0.07, P=0.036). With a cutoff value of 0.505 mg/L, sensitivity of cystatin C for preterm delivery and PROM was 91.9% and specificity was 27.7% with a negative predictive value of 92.3% and a positive predictive value of 26.6%.

Conclusion: Detection of cystatin C levels in the first trimester of pregnancy for the prediction of preterm/PROM seems as a promising preliminary data. The relatively higher first-trimester cystatin C levels in complicated pregnancies are conspicuous. The results imply that in pregnancy cystatin C might be more than a marker for renal function

Keywords: Complication, cystatin C, pregnancy

[OP-075]

Local resection may be a strong alternative to cesarean hysterectomy in conservative surgical management of placenta percreta

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Objective: To evaluate and describe a surgical approach for uterine preservation and management of postpartum hemorrhage in placenta percreta.

Material and Methods: We analyzed the data of patients who were diagnosed with placenta percreta prenatally and subsequently underwent cesarean section in which local resection technique was used to manage postpartum hemorrhage and uterine preservation at our tertiary care center between 2013 and 2016. The details of this surgical approach were as follows: The surgical team was formed of at least two expert obstetricians one of whom was a gynecologic oncologist, familiar with pelvic vascular anatomy, two assistants, an anesthesiologist, and a pediatrician. The first step of the operation commenced with

Figure 1. a-c. (a) shows the vertical fundal incision to deliver the baby. (b) shows the second step of surgery to ligate the bilateral anterior division of internal iliac artery. (c) shows the resection of local portion of uterus that is invaded by the placenta seen as a bulging mass with overlying dilated vessels.

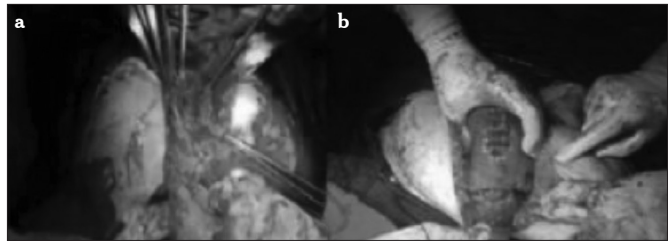

Figure 2. a, b. (a) shows the new uterine edges(upper portion grasped with two fingers and lower portion grasped with ovary clamps). (b) shows the final view of sutured fundal and transvers uterine incisions.

Table 1. Shows the demographic and clinical data of the studied group

Variable	Mean±SD	Number (%)	P value
Number of cases, total		12 (%)	
Local resection with uterine preservation	8/12 (66.6%)		
Age, years	29.5±3.7		
Gravidity	4.2±1.6		
Parity	3.32±1.92		
Gestational age at delivery, weeks	35.1±3.4		
Previous cesarean sections(c/s)			
One c/s		4 (50%)	
Two c/s		2 (25%)	
Three c/s		2 (25%)	
Presence of placenta previa			
Predominating anteriorly		7 (87.5%)	
Predominating posteriorly		1 (12.5%)	
Complication			
Bladder injury		1 (12.5%)	
Number of blood transfusions, unit	4.8±2.6		
Length of hospital stay, days	3.5±0.4		
Mean preoperative Hb level, mg/dl	11.2±0.32		0.01
Mean postoperative Hb level, mg/dl	9.4±0.42		0.01
Duration of operation, minutes	120±25.6		
Diagnostic tools used			
Doppler ultrasound		12/12 (100%)	
Magnetic resonance imaging		6/12 (50%)	

a vertical midline incision under spinal/epidural anesthesia followed by the vertical fundal incision and delivery of the fetus. Then, the placenta was clamped inside the uterus, leaving it in place, and no attempt was made to remove it. The anesthesia was then converted to general anesthesia (Figure 1A). The routine second step, in all patients, was the bilateral ligation of the anterior division of the internal iliac artery (Figure 1B). The third step included the sharp or blunt dissection of the bladder in the uterovesical space and ligation of the perforating vessels from the placenta to the bladder serosa, separately if required. The fourth step included the local (partial) resection of the uterine segment involving the placenta percreta invasion site and if needed, hemostatic sutures to the bleeding sites, particularly in the posterior uterine wall (figure 1C). The fifth step was to apply the Bakri balloon tamponade (Cook Women's Health, Spencer, IN, USA), zooming and suturing the new uterine edges horizontally and closing the fundal incision vertically (Figure 2A and 2B). The appropriate crystalloid infusion, colloids, blood products according to the clinical circumstances, and oxytocin 30 UI i.v. infusion, and methyl ergobasine 0.2mg i.v. in single dose were administered immediately following the resection of the uterine portion.

Results: The technique of local resection described above was successful in preserving the uterus and stopping the bleeding in 8 out of 12 cases. The diagnosis of placenta percreta in all cases were confirmed intraoperatively and postoperatively by histological examinations(Table 1). Four cases were resorted to hysterectomy. The mean number of transfused erythrocyte suspension was 4.8±2.6. One complication of bladder injury was encountered in which treated conservatively.

Conclusion: Placenta percreta is a life threatening condition and leads to increased maternal mortality and morbidity. Conservative approaches and uterine preservation are preferred to radical surgery, which leads to loss of fertility and increases blood loss and perioperative complications. Local resection of percreta site is an effective, safe and fertility preserving approach that can be applied to manage the postpartum hemorrhage and preservation of uterus in patients with placenta percreta.

Keywords: Placenta percreta, uterine preservation, placenta previa, local resection, maternal morbidity

[OP-076]

Insulin resistance is associated with adverse maternal and fetal health outcome in non-GDM pregnants

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Objective: The aims of this study was to evaluate the risk of adverse maternal and fetal health outcomes in non-GDM pregnant women with one abnormal glucose tolerance test result.

Material and Methods: In this retrospective study, a total of 2982 pregnant women, underwent a 50g glucose challenge test (GCT) at 24 to 28 weeks of gestation, was selected from Balikesir State Hospital database between January 2013 and January 2014. Subjects were divided four groups according to GCT and glucose tolerance test (GTT) results. Group I, control subject, had a normal GCT, Group II, screen positive GCT, had an elevated GCT with normal glucose tolerance test (NGT), Group III, abnormal GTT, had an elevated GCT with one abnormal value on GTT and Group IV, gestational diabetes mellitus (GDM) had an elevated GCT with two or more abnormal value on GTT. A GCT cutoff of ≥ 140 mg/dl was selected. Women with an elevated GCT undergo prompt diagnostic testing with a 3-hour GTT. GDM is diagnosed by having two or more abnormal values using Carpenter–Coustan (CC) criteria (fasting ≥ 95 mg/dL, 1-hour ≥ 180 mg/dL, 2-hour ≥ 155 mg/dL, and 3-hour ≥ 140 mg/dL). Maternal and fetal outcomes were compared between the groups. Pregnants who do not have GDM on diagnostic testing return to routine prenatal care.

Results: A total of 2982 pregnant women were screened with a 1-h 50gr GCT and divided four groups according to GCT and GTT results. With increasing plasma glucose values, there was a significant increase in the rate of cesarean section, fetal macrosomia, preeclampsia and neonatal hypoglicaemia.

Conclusion: Positive GCT screening and one abnormal GTT value associated with adverse fetal and maternal health outcome even in the absence of GDM.

Keywords: Gestational diabetes mellitus, oral glucose tolerance test, fetal macrosomia

[OP-077]

Agents used for cervical ripening: a cost effectiveness analysis among patients of high risk pregnancy in a teaching hospital

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Objective: To compare the cost effectiveness of cervical ripening agents (CRA) in women with high risk pregnancies.

Material and Methods: This retrospective analysis included 788 high risk pregnancies for whom CRA were administered in the perinatology intensive care unit of Etlik Zubeyde Hanim Women's Health Training and Research Hospital between January 1 and December 31, 2015. Three methods of cervical ripening were compared for achievement of vaginal birth rates and Social Security Administration (SSA) payments. The SSA payment for vaginal birth, cesarean section, balloon catheter and dinoprostone were: 440, 495, 360 and 74 Turkish liras (TL); respectively.

Results: There were 645, 129 and 14 pregnant women in Dinoprostone, Balloon catheter, and Foley catheter groups with vaginal birth rates of 67%, 76% and 72%, respectively. Cost per single CRA was highest for the balloon catheter and lowest for the foley catheter. For dinoprostone to be cost effective with this rate of vaginal birth (almost 2 in 3) the cost should be less than 36.6 TL (3 dinoprostone needed to prevent 2 cesarean births which equals to extra 110 TL) For balloon catheter to be cost effective with this rate of vaginal birth (almost 3 in 4) the cost should be less than 41.2 TL (4 balloon catheters needed to prevent 3 cesarean births which equals to extra 165 TL). The cost for Foley catheter is negligible.

Conclusion: In the cost effective analysis of CRA, Foley catheter resulted a similar vaginal birth rate compared to the other two agents with a negligible cost.

Keywords: Cervical ripening agents, dinoprostone, cost effective analysis

Table 1. The costs and birth rates of cervical ripening agents administered to high risk pregnancies in year 2015

CRA	Cost of a single dose (TL)	Cost. of total cases for cervical ripening agent (TL)	Vaginal birth N (%)	Cesarean birth N (%)	Total cost (TL)	If all were cesarean births without CRA administration (TL)
Dinoprostone (n=645)	74	47730	432 (67)	213 (33)	343245	319275
Cook balloon (n=129)	360	46440	98 (76)	31 (24)	104905	63855
Foley catheter (n=14)	0	0	10 (72)	4 (28)	6380	6930

[OP-079]

Low primary cesarean delivery rates of a secondary health center in a seven year period

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Objective: To present the indications and primary caesarean section (CS) rates of a secondary level hospital.

Material and Methods: This is a retrospective review of the births recorded at a secondary health center between March 2009 and December 2015. The number of patients with primary CS and repeat CS, total number of births, caesarean indications and complications were assessed.

Results: A total of 6535 live births were recorded during a seven-year-long study period. The mean age of the patients was determined as 26.7 ± 6.0 years (range of age: 15-47 years). Delivery by CS was performed in 20.5% of the total births. Of the cesarean births, 27.8% were primary CS and 72.2% were repeat CS. The mean primary and repeat CS rates during the study period were calculated as 5.7% and 14.8% respectively. The primary CS rate was 8.8% in 2009 and this number decreased to 4.3% in 2015. The most frequently encountered primary CS indications were malpresentation (33.9%) followed by fetal distress (23.3%) and failure of labor induction (14.8%) respectively. No intestinal injury was determined in any patient who underwent cesarean delivery. In the repeat CS group, only one patient had bladder injury which was successfully repaired.

Conclusion: The rates of primary caesarean section determined in this study are very low. These low rates can be attributed to the several factors such as informing and encouraging patients about vaginal birth, avoiding CS on maternal request and applying amniotic membrane stripping at term pregnancies.

Keywords: Caesarean section, cesarean section indications, rate of primary cesarean section

[OP-080]

How does gelatin sponge affect postoperative morbidity of women delivering by cesarean section?

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Objective: To determine the effect of the use of local haemostatic gelatin sponge on postoperative morbidity in patients undergoing caesarean section (CS).

Material and Methods: The records of 130 patients who underwent CS surgery were retrospectively evaluated. Group 1 comprised 65 patients in whom gelatin sponge (GS) applied. Group 2 comprised 65 patients who did not receive GS. Time to first flatus, nausea and vomiting, requirement for antiemetic drugs, development of postoperative ileus, and hospitalisation duration were compared between groups.

Results: No significant difference in mean age, gravida, parity, or BMI was observed between the 2 groups. No significant difference in the number of patients with abdominal adhesions, or nausea and vomiting was observed. A statistically significant difference in the time to first flatus was observed between groups (Group 1, 28.21±8.29 hours; Group 2, 12.89 ±4.85 hours; $P < 0.001$). Hospitalisation durations were significantly longer in Group 2 (Group 1, 49.73±12.67 hours; Group 2, 41.33±2.62 hours; $P = 0.004$). No significant differences in postoperative ileus, the use of antiemetic medication, or febrile morbidity were observed between groups.

Conclusion: The utility of GS in patients undergoing CS may be limited by associated increases in time to first flatus and hospitalisation duration postoperatively.

Keywords: Caesarean section, gelatin sponge, time to the first flatus

[OP-081]

Prophylactic hypogastric artery ligation in surgery for placental invasion disorders

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Objective: To determine the effectiveness of prophylactic hypogastric artery ligation (HAL) on the bleeding control in surgeries of placental invasion anomalies.

Material and Methods: In this study, an evaluation was made of the effects on bleeding of prophylactic HAL applied before hysterectomy in

Table 1. The operative outcomes of both groups

	Group 1 Hysterectomy (n=19)	Group 2 HAL+ Hysterectomy (n= 26)	p value
Duration of operation (minutes)	103.3±24.9	112.7±23.2	0.340
Estimated blood loss (mL)	3183±429	2204±445	0.001
Fluid drainage (mL)	2346±1169	700±411	0.001
Red cells transfused (units)	5.8±1.8	3.3±0.8	0.001
FFP transfused (units)	3.9±0.8	2.5±0.8	0.001
Thrombocyte level (K/uL)	134±34	145±10	0.246
INR	1.1±0.1	1.0±0.1	0.059
Hospitalization days	5.0±1.0	4.3±0.5	0.118
Thrombocytes transfused (units)	0.2±0.4	-	0.068
Complications			
• Bladder perforation	8 (42%)	10 (38%)	
• Ureteral injury	0	0	
• Postoperative fever	6 (31%)	7 (27%)	
• Maternal mortality	0	0	
• Re-operation	0	0	
Total	14	17	0.396

HAL: Hypogastric artery ligation, FFP:Fresh frozen plasma, INR: International normalized ratio

cases of placental invasion anomalies. A total of 45 pregnant patients with placental invasion anomalies were examined retrospectively. In Group 1 (n=19) hysterectomy alone was applied in the surgical treatment and in Group 2 (n=26), prophylactic HAL was applied before hysterectomy. The results were compared with evaluation of morbidities, particularly bleeding.

Results: Statistically significantly higher values were determined in Group 1 compared to Group 2 in respect of estimated blood loss (3183 vs 2204 ml, p< 0.001) amount of fluid drainage (2346 vs 700 ml, p< 0.001), and mean units of packed red cells and thrombocytes transfused (5.8 vs 3.3 units, p<0.001and 3.9 vs 2.5 units, p< 0.001 respectively). The hCO3 level was statistically significantly lower in Group 1 (16.3 meq/L in Group 1,19.2 meq/L in Group2) (p=0.003).

Conclusion: Prophylactic HAL has a protective effect on bleeding in operations of placental invasion anomalies and may be used in cases in which balloon occlusion of the hypogastric artery can not be performed.

Keywords: Hypogastric artery ligation, peripartum hysterectomy, haemorrhage

[OP-082]

Assessment of the cesarean scar pregnancies diagnosed in a tertiary health center in the last year

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Objective: To present demographic and clinical characteristics and management of cesarean scar pregnancies.

Material and Methods: A retrospective examination was made of cesarean scar pregnancies which were diagnosed and treated in the obstetrics and gynecology clinic at Sütçü İmam University Hospital, a tertiary health center between January and December 2015. The data regarding the demographic and clinical characteristics, ultrasonographic findings and treatment outcomes were obtained from the medical records.

Results: During the study period, six cases were diagnosed as cesarean scar pregnancy. Diagnostic method was transvaginal ultrasonograph in all of the cases. The mean age was 33.2 ± 3.3 years and mean gravida was 4.3 ± 1.5. The mean gestational age at the time of diagnosis was determined as 6.9 ± 0.5 weeks. The mean number of previous cesarean sections was 2.2 ± 0.9. In all of the cases, dilatation and curattage (D&C) was performed one week after the administration of a single dose methotraxate (1mg/kg) intramuscularly. The mean serum beta human chorionic gonodotropin level at the time of diagnosis was 21917.7 ± 14290.5 IU/mL. The mean serum hemoglobine level prior to methotraxate teatment and after D&C were determined as 11.9 ± 2.2 and 10.8 ± 1.9 g/dL respectively. There was no need for hysterectomy or for transfusion of blood and blood products in any of the cases. The rate of CSP among the ectopic pregnancies diagnosed during the study period was 5.4%

Conclusion: CSP may lead to uterine rupture and thereby maternal mortality due to delay in diagnosis. Early recognition has a vital role in reducing complications related with cesarean scar pregnancies. However there is no consensus on the diagnostic criteria and treatment modalities in cesarean scar pregnancies. In the current study, it was found that D&C performed one week after the administration of a single dose systemic methotraxate administration might be a succesfful treatment option for cesarean scar pregnancies. However the small sample size was the major limitation of this study.

Keywords: Cesarean scar pregnancy, dilatation and curattage, methotraxate

[OP-083]

Association between maternal vitamin D status in pregnant women and risk of gestational diabetes mellitus

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Objective: To investigate whether maternal serum levels of 25-hydroxyvitamin D [25(OH)D] in the first trimester is associated with an increased risk of gestational diabetes mellitus (GDM).

Material and Methods: We conducted a cross sectional study of a cohort in pregnant women who had undergone routine genetic multiple marker screen and subsequent glucose tolerance testing. Of the 23 women with GDM and 208 controls without GDM were included in this study. Plasma 25(OH)D concentrations were measured using liquid chromatography-tandem mass spectrometry.

Table 1. Maternal severe vitamin D deficiency at 11–14 and 24–28 weeks of gestation

	Women with gestational diabetes	Control subjects	p value
Severe vitamin D deficiency (25(OH)D level <10 ng/mL) measured at 11–14 weeks of gestation (visit 1), n (%)	11 (44%)	93 (44.7%)	0.9
Severe vitamin D deficiency (25(OH)D level <10 ng/mL) measured at 24–28 weeks of gestation(visit 2), n (%)	5 (33.3%)	63 (46.7)	0.3
Δ25(OH)D (V2–V1)	0.25±5.8	0.84±12.84	0.8

Results: Mean 25(OH)D concentrations at 11–14 weeks of gestation were not significantly different in women who subsequently developed GDM compared with those who did not (mean ± SD: 13.96 ± 9.05 versus 13.43 ± 9.72, p=0.8). The prevalence of first-trimester severe 25(OH) D deficiency (<10 ng/mL) was similar in women with GDM and healthy controls (44% vs 44.7%, respectively; p=0.9). The mean concentrations of 25(OH)D slightly increased over the two gestational age windows both in women with GDM (mean Δ25(OH)D: 0.25 ± 5.8 ng/mL) and controls (mean Δ25(OH)D: 0.84 ± 12.84 ng/mL), but the difference was not statistically significant (p=0.8) (Table 1)

Conclusion: Vitamin D deficiency in early pregnancy is not significantly associated with elevated risk of GDM.

Keywords: Gestational diabetes mellitus, pregnancy, severe vitamin D deficiency

[OP-084]

Patients followed due to severe maternal morbidity and treatment results

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Objective: Maternal mortality statistics are used as a measurement of the quality of maternal health and maternity wards around the world. However, maternal mortality rates decreased consistently in developed countries in the last two centuries, and severe maternal morbidity or near-miss patient rates were claimed to be more practical indicators than mortality rates in displaying the quality of obstetric treatment. In Turkey, there is no sufficient information in the medical literature related to severe Maternal Morbidity or near-miss patients and their results. In this study, it is aimed to evaluate the characteristics of the patients consulting our clinic that is the reference university hospital of Sakarya province with severe acute complications in pregnancy and taken to the intensive care unit due to severe obstetric morbidity and the treatment results.

Material and Methods: Pregnant and puerperal women consulting the Clinic of Maternity Health and Obstetrics of Sakarya University Training and Research Hospital between January 2014 - December 2015 and treated in the intensive care unit were included in this study, and their files were scanned retrospectively. Demographic characteristics of the patients such as maternal age, previous obstetric and pregnancy history, and pregnancy age during admission from their discharge epicrisis from intensive care were recorded. Whether there was a patient followed in the service or transferred from another hospital, whether she was pregnant when she arrived in the intensive care unit, whether she gave birth, her mode of delivery, and neonatal results were recorded. The diagnosis during the stay in the intensive care unit, the length of intensive care unit stay, whether advanced life support attempts or interventions were implemented, hemodynamic data, transfusion amount, intraoperative complications in patients that had an operation, and maternal morbidity and mortality information were recorded.

Results: In a two-year period, 16728 hospital births, 68 near-miss cases and maternal death in two of these patients were observed in our clinic. The mean age of the patients (n=68) with severe obstetric morbidity was 28,48±5,94. While 73.5% of the patients (n=50) were sent to the hospital extrinsically, there were 18 cases (26.5%) in whom complications developed during their stay in the service. 58.8% of the near-miss cases (n=40) had severe hypertensive diseases, on the other hand, 35.3% of the cases (n=24) had obstetric complications that developed in regard to bleeding. While 40% of the cases (n=16) with hypertension had severe pre-eclampsia, 35% of the cases (n=14) had eclampsia, and 25% (n=10) had HELLP. No significant difference was identified between whether or not the cases that underwent blood product transfusion in intensive care were sent to our clinic, and the high transfusion rates of the referred patients are remarkably excessive (p=0,088; p>0,05).

Conclusion: The most important reasons for near-miss maternal morbidity are the complications related to obstetric bleeding and hypertensive diseases of pregnancy. In order to prevent the delays in interventions due to conveyor chain, it is necessary to diagnose the patients with a risk factor in terms of obstetric complications early, perform their antenatal follow-ups and births in tertiary centers.

Keywords: Maternal near-miss, obstetric complication, maternal death, maternal morbidity

[OP-085]

Thiol disulphides may be a marker to determine the degree of preeclampsia?

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Objective: The aim of this study was to investigate the relationship between serum thiol/disulphide homeostasis and severity of preeclampsia.

Material and Methods: Thirty-two pregnant women with severe preeclampsia and 30 pregnant women with mild preeclampsia and 37 healthy, uncomplicated pregnancies were included in this study. Native thiol (-SH), disulphide(-S-S) and Total thiol ((S-S)+(-SH)) concentrations were measured by a novel automated assay method. Furthermore, disulphide/total thiol percent ratios (S-S/-SH+S-S), disulphide/native thiol (S-S/-SH) percent ratios and native thiol/total thiol percent ratios (-SH/-

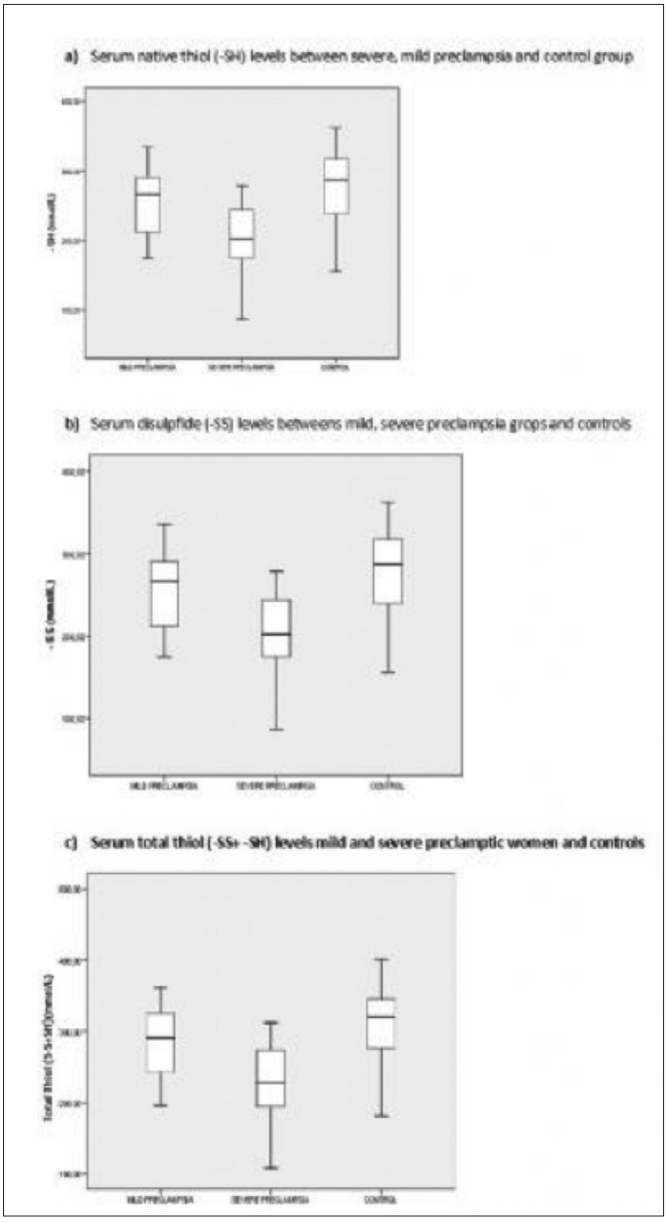

Figure 1. SH: curves of serum

SH+S-S) were calculated in all groups. In the ROC analysis performed for severe and mild Preeclampsia and Thiol/Disulphide Homeostasis, the sensitivity, specificity and cut-off values of Thiol/Disulphide were estimated, and the areas under the curve were calculated.

Results: The serum native and total thiol levels were significantly lower in severe preeclampsia when compared with the mild preeclampsia and control groups ($p<0.001$). Disulphide (S-S) levels were significantly lower in severe and mild preeclampsia group compared with the control group ($p<0,01$). When the ROC analysis between groups is performed separately, a statistically significant relation was detected between the presence of severe preeclampsia and 275,9 cut-off value of Native Tiyol level ($p=0.001$; $p<0.01$). It can be said that the risk of preeclampsia incidence in cases with the Native Tiyol level of 275,9 and below is 50,93 times higher. The ODDS rate for Native Thyol is 50,929 (%95 CI: 6,241-415,573)(Figure 2).

Conclusion: Thiols are the greatest antioxidants of serum components. The results of this study suggest that severe preeclampsia might be characterized by different levels of thiol hemostasis. Serum thiol/disulphide homeostasis may have a role in the pathogenesis of preeclampsia.

Keywords: Mild Preeclampsia, Oxidative Damage, Severe Preeclampsia, Thiol/Disulphide Homeostasis.

Keywords: Mild Preclampsia, oxidative damage, severe preeclampsia, thiol/disulphide homeostasis

[OP-086]

Obstetric relaparotomies

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Objective: Study on bleeding regions and characteristics of patients which were performed relaparotomy (RL) due to bleeding.

Material and Methods: A retrospective observational study about the obstetric patients treated between Jan 06 and July 15 due to bleeding in a tertiary care center was performed. Study includes patient had cesarean section (CS) (patients with previous CS, cephalopelvic disproportion (CPD)-breech presentation, placental abruption, preeclampsia-eclampsia and performed CS due to rupture diagnosis during normal delivery) and bleeding and patients with normal delivery that were performed operation due to atony or rupture and had bleeding afterwards. 124 patients performed RL were observed and 10 patients left out of the study (9 due to abscess and 1 due to placental retention). There were total of 21411 delivery, with 7713 of them normal delivery and 13698 of them CS.

Results: 114 patients were performed RL due to bleeding and the RL ratio is 0.532% (RL rate after CS 0.67%, RL rate after normal delivery 0.28%). 20 of patients had normal delivery and 94 of them had CS. The most

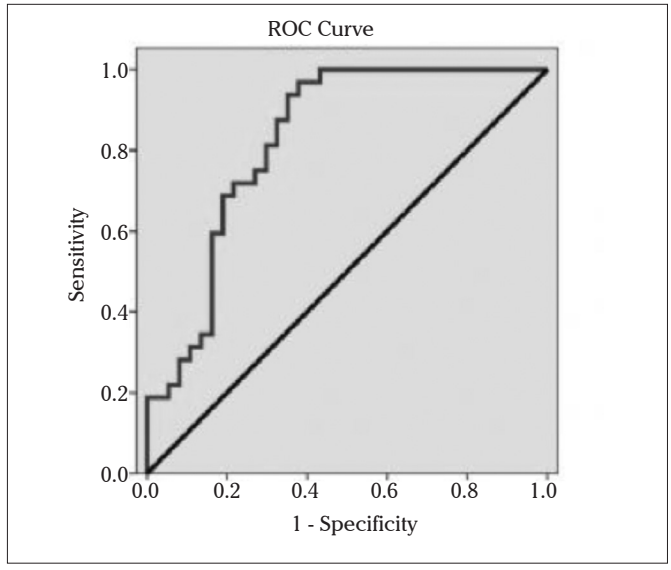

Figure 2.

common operations performed initially were CS in 82 cases (71.9%) and followed by 23 hysterectomies (20.2%) and rupture repair 9 (7.9%). RL indications were abdominal bleeding in 95 (83.4) cases and atony in 19 (16.7%). Performed procedures at RL were hysterectomy 45 (39.5%), secondary suturation 25 (21.9%), vascular ligation 21 (18.4%), rectus muscle repair 16 (14%) and rupture repair 7 (6.1). Together with rectus muscle repair, 2 patients were performed secondary suturation, 1 patient hysterectomy and 1 patient vascular ligation. In 9 patients were needed secondary RL and out of these; 2 patients were performed hysterectomy, 6 patients secondary suturation and 1 patients uterine devascularization. Secondary RL risk observed as 7.89% and mortality rate 3.5% (4 patients). Out of these 4 patients; 3 of them were performed CS due to CPD-breech presentation and the other one due to placental abruption.

Conclusion: Most of the patients performed obstetric RL had previous CS, though natural delivery has the risk also. Most common bleeding region is uterus. For rectus muscle being among these regions is very important to have control over rectus muscle during the first operation.

Keywords: Relaparotomy, bleeding, rectus muscle

[OP-088]

Relationship between fetuin-A levels and recurrent miscarriage

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Objective: Whether recurrent miscarriage is associated with increased fetuin-A levels and serum fetuin-A can be proposed as a potential marker for identifying women at risk of pregnancy loss.

Design: Case-control study of 89 women.

Material and Methods: Serum fetuin-A concentrations were measured in 30 non-pregnant women with a history of unexplained recurrent miscarriage (Group I), 29 women who had history of unexplained recurrent miscarriage and were admitted to our clinic due to miscarriage during the study period (Group II) and 30 fertile women who have no history of miscarriage or any other pregnancy complications with at least two previous healthy children (Group III). The samples in the Group II were obtained within a short time after miscarriage. Serum fetuin-A levels of these three groups were assessed and compared.

Results: The median serum fetuin-A levels of Group I, II and III were 59.45, 62.73 and 44.52 respectively (p=0.065). More importantly, we detected a significant increase in serum fetuin-A levels in group II compared to group III (p=0.011). No significant differences in the levels of fetuin-A of group I compared to either group II or group III (p=0.433 and 0.268 respectively).

Conclusion: Previous studies have reported an association between high concentrations of fetuin-A in cell media and decrease viability and invasiveness of human extravillous trophoblast (EVT) cells. This is the first study evaluating the association between serum fetuin-A levels and recurrent miscarriage. Our results showed that serum fetuin-A levels were significantly increased in women with a history of recurrent miscarriage and were experiencing pregnancy loss compared to both fertile women and non-pregnant women with a history of recurrent miscarriage. These results demonstrate that high fetuin-A levels may be one of the factors related to pregnancy loss which may be informative for future studies. This small sized case control study can only demonstrate association not a cause effect relationship. Further studies with large population size are required to investigate whether fetuin-A can be used for identifying women at risk of miscarriage.

Keywords: Fetuin-A, recurrent pregnancy loss

[OP-089]

Emergency peripartum hysterectomy: a 10-year experience at a single center

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Objective: The objective of our study is to determine incidence, risk factors, indications, outcomes, and complications of emergency peripartum hysterectomy (EPH) retrospectively performed in our university hospital.

Material and Methods: This retrospective study includes 54 cases of EPH performed at the department of obstetrics and gynecology of Gaziantep University Hospital between the years 2005–2015. We included all hysterectomy cases of uncontrolled uterine bleeding unresponsive to medical measures during the first 24 hours after the 20 weeks of gestation. Age, gravidity, parity, body mass index (BMI), history of previous cesarean delivery (CS), mode of delivery were maternal characteristics. Indication of hysterectomy, type of hyster-

Table 1. Maternal characteristics and perinatal outcomes of EPH

Age†	32.39 (18-43)
BMI†	27.56 (24.5-31.3)
Gestational week†	36.02 (22-40)
Previous caesarean*	
<=2	15 (33.3)
>=3	30 (66.6)
Hysterectomy*	
Total	47 (87)
Subtotal	7 (13)
Apgar score (1 minute)†	8.2 (2-9)
Apgar score (5 minute)†	9.4 (3-10)
Blood products†	4.1 (1-8)
Erythrocyte Fresh frozen plasma Apheresis	3.2
Operation time (minute)†	71.91 (40-120)
Neonatal death*	6 (11.1)
Maternal death*	1 (1.9)
Mode of delivery*	
Vaginal delivery	9 (16.6)
Caesarean	45 (83.4)

†Mean (min-max) *n (%)

ectomy, need for blood transfusion, need for bilateral internal iliac artery ligation, postoperative complications, postoperative hospital stay, intensive care unit (ICU) admission rate and neonatal outcomes were analyzed.(Table 1) We compared the most common indications of EPH between each other.

Results: In a ten-year period, 8922 deliveries took place which consist of 6726 vaginal deliveries and 2196 cesarean sections. There were 54 EPH out of 8922 deliveries with an incidence of 6 per 1,000 deliveries during the study period. Forty-five EPHs were performed after caesarean delivery and nine after vaginal delivery. The most common indications were abnormal placentation (74.0 %), followed by uterine atony (18.6%), and uterine rupture (7.4%). Thirty-five percent of patients who underwent EPH with abnormal placentation had at least two previous CS. Fourty-seven patients (87 %) underwent total hysterectomy, and the most frequent indication was abnormal placentation (82.9%). The remaining 7 patients underwent subtotal hysterectomy (13%), and the most common indication was uterine atony (57.1 %). Maternal and perinatal mortalities were 1.9% and 11.1%, respectively. Urinary tract injury (33.4 %) was the most common intraoperative complication and disseminated intravascular coagulopathy (DIC) (20.4 %) was the most common postoperative complication. Bilateral hypogastric artery ligation, urinary tract injury,neonatal death and other complications (pelvic hematoma leading to relaparatomy, respiratory arrest, acute renal failure, sepsis, hyperglycaemia, wound infection) were significantly related with the type of EPH indication ($p<0.05$).(Table 2)

Table 2. Maternal demographics and complications with respect to the indication of EPH

Maternal characteristics	Abnormal Placentation n=40	Uterine atony, rupture n=14	P
Age†	32.5 (4)	31.8 (6.3)	0.905
Gravidity†	4.6 (1.7)	4.8 (3.1)	0.805
Parity†	3.03 (3)	3.07 (3)	0.559
BMI (kg/m^2)†	27.6 (1.5)	27.4 (1.2)	0.767
Previous caesarean section	40 (88.8)	5 (11.2)	
<=2	14 (35)	3 (60)	
>=3	26 (65)	2 (40)	
Gestational week†	36.5 (3.3)	34.5 (6.6)	0.800
Operation time(minute)†	72.2 (14.5)	70.8 (11.3)	0.713
Hysterectomy*	40	14	
Total	39 (97.5)	8 (57.1)	
Subtotal	1 (2.5) 14	6 (42.9)	
Neonatal death*	2 (5)	4 (28.6)	0.025
Bilateral hypogastric artery ligation*	3 (7.5)	5 (35.7)	0.017
ICU admission*	20 (50)	7 (50)	1
Blood Transfusion*	40	14	
Erythrocyte	3.9 (1.9)	4.3 (2.2)	
Fresh frozen plasma	3.2 (1.7)	3.1 (1.7)	0.570
Apheresis	7	2	0.652
1Ü	3 (7.5)	2 (14.3)	0.095
2Ü	4 (10)	-	
Delivery in another hospital*	3 (7.5)	5 (35.7)	0.017
Complications*	17 (42.5)	1 (7.1)	0.037
Urinary tract injury	10 (25)	1 (7.1)	0.252
DIC	3 (7.5)	6 (42.9)	0.006
Others (pelvic hematoma leading to relaparatomy, respiratory arrest, acute renal failure-dialysis, sepsis, hyperglycaemia, wound infection)			

†Mean (SD) * n (%)

Conclusion: Abnormal placentation was the most common indication for EPH, which required total hysterectomy in most of the cases. Previous CS can be suggested as a high risk factor for abnormal placentation. EPH remains related with a high incidence of morbidity. The delivery should be performed in appropriate clinical settings with experienced surgeons when high risk factors like abnormal placentations are determined preoperatively.

Keywords: Abnormal placentation, maternal morbidity, peripartum hysterectomy

[OP-090]

Placental vascularization and apoptosis in type-1 DM and gestational DM

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Objective: To analyze the alteration in vascularization and apoptosis of GDM and Type 1 DM patients' placenta.

Material and Methods: Placental samples drawn from normal (n=6), GDM (n=6) and Type 1 DM (n=6) pregnancies were rinsed in PBS and fixed in 4% paraformaldehyde. The obtained sections were examined by both light and electron microscopy. Subsequently, immunohistochemical staining was performed to evaluate apoptosis and vascularization by caspase-9 and VEGF antibodies.

Results: Capillary structures in various sizes, both in free and stem villi, were observed more densely in GDM group, than the control and Type-1 DM groups, on electron microscopy. Similarly, when compared to Type-1 DM and controls, decreased amount of microvilli with more irregularity and blunting on the villus surface was detected. GDM group showed increased immunoreactivity in capillaries of stem villi, free villi and endothelial cells when compared to Type-1 DM and control groups. Regarding the immunohis-

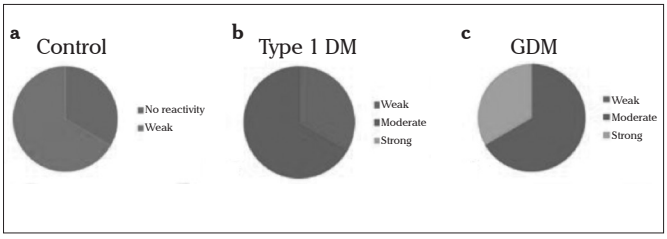

Figure 1. Immunohistochemical staining results with anti-VEGF antibody on placental tissue sections. Vascular formations are weaker in the control group than the other groups (a), but vascular formations in stem villi and intense VEGF immunoreactivity in endothelial cells are present in the Type-1 DM (b) and GDM (c) groups.

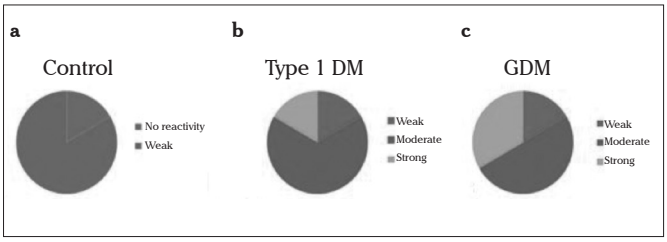

Figure 2. Immunohistochemical staining results with caspase-9 antibody on placental tissue sections. Absence of Caspase-9 immunoreactivity in syncytiotrophoblasts (SSTs) in the control group (a), intense immunoreactivity in SSTs in the Type-1 DM (b) and GDM groups (c).

tochemical staining with caspase-9; Type-1 DM and GDM groups showed stronger immunoreactivity than the control group, especially in syncytiotrophoblastic cell nuclei and stromal cell nuclei. But there was no significant difference between Type-1 DM and GDM groups.

Conclusion: Type-1 DM and GDM placentas, showed increased villous stromal capillarization, increased immunoreactivity with VEGF and caspase9, and increased syncytial nodes, which may develop secondary to placental hypoxia-ischemia. But, more participants are needed to confirm these conclusions.

Keywords: Placenta, diabetes mellitus, VEGF, caspase 9

[OP-091]

Intended vaginal birth after cesarean section, retrospective analysis of an eight years period from a single perinatal center in Germany

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Objective: The aims of this study are to evaluate the perinatal outcomes including the success of vaginal birth, maternal, fetal, and neonatal well-being, and complication rates after intended vaginal birth after cesarean (VBAC) trial, in order to reduce cesarean section rates.

Material and Methods: Birth records from 2008–2016 in hospital database of Obstetrics and Gynecology Department of Leverkusen Hospital were reviewed retrospectively. 607 patients fulfilled the inclusion criteria such as singleton pregnancy, cephalic presentation, and a past medical history of only one previous cesarean section.

Results: In 8 years' data, the success rate of VBAC was 64.6 % (n=392 vaginal births) and repeated cesarean rate was 35.4% (n=215). Operative deliveries with forceps (n=3) and vacuum extraction (n=66) constituted 11.3% of total and 17.6% of vaginal births. Postpartum laparotomy was performed in one patient for reason of occult rupture and retroperitoneal hematoma, but the uterus could be preserved. In another patient with no finding of uterus rupture in the initial cesarean delivery, relaparotomy was performed because of intraabdominal bleeding and uterine atony. Uterus could also be preserved in this case. Furthermore in another patient, subtotal hysterectomy was performed immediately after emergency cesarean section following uterus rupture. Rate of hysterectomy and laparotomies as major surgical complications categorized in grades III-IV according to the Clavien-Dindo classification in relation of the VBAC were 0.49% (3/607); however, no maternal mortality occurred. There were 35 neonates with first minute APGAR scores lower than 7 and 7 neonates persisted with 5th minute APGAR scores lower than 7. Of the 35 neonates, 22 required short time supervision, 7 required CPAP for short time, 3 required CPAP for >= 1 days, and 3 required intubation. Fetal mortality in one case was attributed to severe hydrops fetalis and prematurity at 30 weeks. One suspected hypoxic ischemic encephalopathy case has not developed any symptoms and has represented normal neuromotor development within 2 years of life.

Conclusion: Intended VBAC could be safely applied and is also effective in decreasing cesarean rates. No fetal or maternal death occurred in the context of uterine rupture.

Keywords: Vaginal birth after cesarean, pregnancy outcome, high-risk pregnancy, parturition, newborns

[OP-092]

Activation of STAT3 and TNFα in severe pre-eclampsia

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Pre-eclampsia is a complication of pregnancy. Women with pre-eclampsia have high blood pressure, protein in their urine and may develop other symptoms and problems. TNFα has been shown to have an effect on placental invasion, apoptosis,TNF-α in particular is known for its cytotoxic effects, which are mediated largely through TNF receptor 1 (TNFR1) via its intracellular death domain, which

activates the caspase apoptosis pathway. STAT3 is a key mediator of the response to each of these cytokines, as well as EGF and other growth factors and is known to contribute to preparing the endometrium for implantation. Inhibition of activated STAT3 function has been shown to block implantation when applied locally to the uterus. It has also been demonstrated that PStat3 is a key regulator of trophoblast invasion and that phosphorylated Stat3 enhances the invasiveness of trophoblast cells. The aim of this study was to evaluate by the histopathologic, immunohistochemistry and westernblotting methods of placenta tissues from patients with severe pre-eclampsia with and without haemolysis, elevated liver enzymes and low platelets (HELLP) syndrome. Twenty patients with preeclampsia 20 age-matched healthy pregnant women were enrolled in this study (in total 40 pregnant women). Placenta biopsies of babies born at 35-38 weeks of pregnancy were removed.The patient and control groups were similar according to baseline obstetric characteristics. In control group placentas, chorionic villous structures appeared with connective tissues core covered by trophoblastic cell layers; chorionic villous was rich with fetal capillaries. In histopathologic eamination of preeclamptic placenta; cytotrophoblastic cellular proliferation, fibrinoid necrosis, endothelial proliferation, calcified and hyalinised villous spots were observed. TNF-α expression in preeclamptic placentas increased. Especially decidual cells and in endothelial cells of blood vessels, also showed a significant increase in the area of the syncytial node. This study showed that pStat3 immunoreactivity were localized in both villous cytotrophoblast cells and decidua cells in the placentas. Pstat3 expression in preeclamptic placental decidual cells decreased and trophoblast cells.Western blotting applications pstat3 were reduced, also showed close parallels with immunohistochemical findings. We demonstrate that expression of pSTAT3 is decreased in the blood vessel endothelial cells of Pre-eclampsia placentas relative to control specimens (Figure 1), which suggests that pSTAT3 may play a role in aberrant placental blood vessel development in Pre-eclampsia. As compared with normotensive pregnancies, decreased expressions pStat3 proteins were observed in villous cytotrophoblast cells, decidua cells and placentas in patients with Hellp syndrome. Pre-eclampsia, placental decidual cells, trophoblast cells and vascular endothelium is affected. In this case, inter-cell signal transduction and are thought to be caused to change in angiogenesis.Tumor necrosis factor alpha(TNF-α) expression in preeclamptic placentas increased (Figure 2) This may improve placental hypoxia. As compared with normotensive pregnancies, incresaed expressions. These findings suggest that TNF-alpha in the placenta is a key cytokine to interfere with trophoblast invasion into the uterus in pre-eclampsia

Keywords: Placenta, preeclampsia, STAT3, TNFα

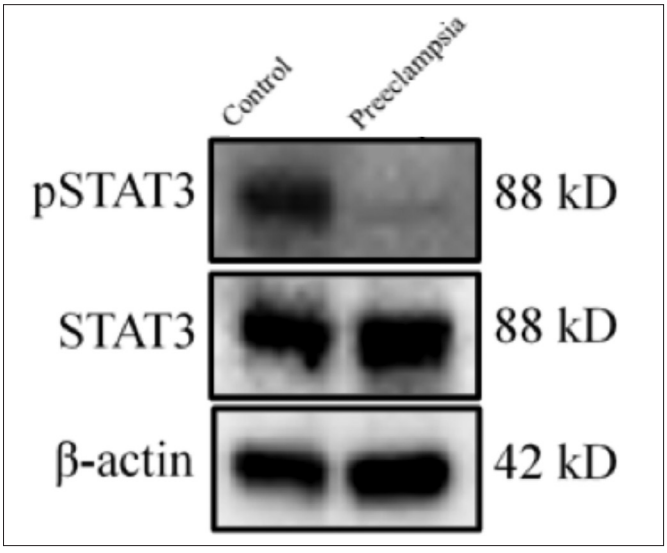

Figure 1.Phosphorylation of STAT3 (S727) was abolished in placenta of patients with preeclampsia. Equal amounts of total proteins were run on the gel and analysed by Western Blotting using anti-STAT3, anti p-STAT3 (S727) and anti-β-actin antibodies. β-actin was used as a loading control

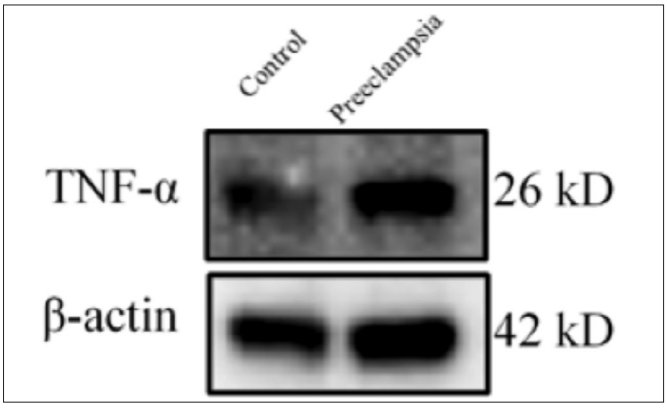

Figure 2. The expression of TNF-α on placenta was dramatically increased in patiens with preeclampsia. Equal amounts of total proteins were run on the gel and analysed by Western Blotting using anti-TNF-α and anti-β-actin antibodies. β-actin was used as a loading control

[OP-093]

Can anemia predict perinatal outcomes in pregnancy?

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Objective: The aim of this retrospective study is to investigate the effect of anemia on perinatal outcomes as preterm delivery (PTD) and low birth weight (LBW) in the different stages of pregnancy. Deter-

Table 1. Demographic characteristics

		HB ≥11 gr/dL		HB <11 gr/dL		Total		p
Maternal age (years)		27.69±6.04		27.18±6.08		27.56±6.05		0.00
Parity	1	12968	43.1%	4329	43.0%	17297	43.1%	0.987
	2-4	16155	53.7%	5417	53.8%	21572	53.7%	
	5+	728	2.4%	246	2.4%	974	2.4%	
Delivery	Vaginal	13631	46,0%	4213	42.2%	17844	45.1%	0.00
	Caesarean	15974	54.0%	5769	57.8%	21743	54.9%	
Abortion numbers	0	3901	63.9%	1116	59.5%	5017	62.9%	0.00
	1	1685	27.6%	612	32.6%	2297	28.8%	
	2+	516	8.5%	147	7.8%	663	8.3%	

HB: Hemoglobin
P value <5.05 is considered statisticaly significant

Table 2. Prenatal outcomes

	Delivery				Low Birth Weight				Preterm Delivery				Birth Weight	
	Vaginal		Caesarean		No		Yes		No		Yes			
	N	%	N	%	N	%	N	%	N	%	N	%	Median	SD
Anemia 1. Tri.														
HB<10 gr/dL	113	2.8	212	3.3	283	3.3	44	4.5	274	3.3	53	3.9	3120.34	739.66
HB 10-11 gr/dL	348	3.7	470	8.5	741	3.5	53	8.6	695	3.4	123	9.5	3150.51	663.23
HB>11 gr/dL	3555	88.5	4828	87.6	7673	88.2	838	86.8	7342	88.3	1159	86.6	3187.43	627.56
P	0.02				0.102				0.13				0.01	
Anemia 2. Tri.														
HB<10 gr/dL	441	9.5	597	9.4	512	5.7	238	13.3	744	5.4	305	15.1	2562.23	950.99
HB 10-11 gr/dL	1084	23.4	1414	22.3	2088	22.3	439	24.5	1940	22.0	587	25.2	3002.55	876.70
HB>11 gr/dL	3114	67.1	4523	66.3	5443	59.0	1112	62.2	5121	59.5	1439	51.7	3065.39	310.47
P	0.41				0.00				0.00				0.05	
Anemia 3. Tri.														
HB<10 gr/dL	1187	12.3	1714	12.5	2578	12.3	371	13.7	2427	12.1	522	13.9	3163.81	627.99
HB (10-11 gr/dL)	2009	20.6	2520	20.5	4392	20.9	509	15.5	4110	20.5	791	21.0	3189.45	595.45
HB>11 gr/dL	6479	67.0	9199	67.0	14073	55.9	1829	67.5	13452	67.3	2450	65.1	3173.70	624.17
p	0.84				0.01				0.01				0.04	

SD: standard deviation; HB: hemoglobin
p<0.05 is considered statistically significant.

mination of the correlation between anemia and perinatal outcomes may guidance for necessity of iron supplementation during pregnancy

Material and Methods: This retrospective study was conducted on 39587 Turkısh pregnant women who delivered between January 2011 and September 2014. Anemia during pregnancy was defined as hemoglobin (Hb) <11 g/dl, low birth weight was defined as birth weight <2500gr and PTD was defined as <37 weeks. The pregnant women were divided into 3 groups (Hb <10 gr/dl, Hb 10-11 gr/dl, Hb >11 gr/dl). Perinatal outcomes were compared between these anemic and non-anemic groups. Also we compared anemic groups itself. All analyses were conducted using SPSS 22.0.

Results: The anemia prevalance in our study was 25.1% and demographic characteristics of patient are summarise in Table 1. In the first and second trimester of Hb <10 g / dl group LBW ratio was significantly higher (respectively 13.5 %, 9.8 %, p = 0.03; 22.7 %, 14.7 %, p=0.00) In the second and third trimesters of Hb <10 g / dl group PTD ratio is significantly higher (respectively 29.1 %, 19%, p = 0.00; 17.7%, 15.4 % p = 0.02). In the first trimester Hb < 10 g / dl group cesarean section rate was significantly higher (respectively 65.2 %, 57.6%, p = 0.01).In the first, second and third trimesters of Hb < 10 g/dL group, average birth weight is low in Table 2. Pregnant women with anemia in their second/third, PTD rate was significantly higher than in the first trimester. Pregnants with anemia during the whole pregnancy, cesarean section and PTD ratio were significantly higher (respectively 62.4%,43%,p = 0.00; 19.1%,15.5%,p=0.00).

Discussion: As noted in several studies in the literature, anemia during pregnancy is together with suboptimal perinatal outcomes such as premature births and low birth weight infants.In this study, in the first, second and third trimesters of Hb <10 g/dl group PTD and LBW ratio were higher than non-anemic group and the average birth weight is low. Also in the group with anemic during the whole pregnancy, cesarean section and PTD ratio were higher than non-anemic group. In our study, there is a strong association between PTD and LBW infants with anemia.

Conclusion: In the first, second and third trimester of Hb <10 g/dl group, LBW and PTD ratio is higher than non–anemic group. First trimester Hb<10 g/dL group was with high cesarean rate. The mean birth weight was significantly lower in anemic pregnant women in the second trimester. In the 2/3 trimester Hb < 10 g/dl group preterm birth rate was higher than the group with the same hemoglobin levels in the first trimester. So the trimester 2/3 < 10 g/dL Hb values were at higher risk for PTD than the first trimester.In pregnants with anemia during the whole pregnancy, cesarean section and PTD ratio were significantly higher.

Keywords: Anemia, preterm delivery, low birth weight

[OP-094]

Do adipokines have an association with gestational diabetes mellitus?

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Objective: Only a few adipokines have been investigated with respect to their involvement in gestational diabetes mellitus (GDM). Evidence in the existing literature to date does not support a clear role of chemerin, retinol binding protein-4 (RBP-4) and visfatin for prediction of GDM. The

aim of the present study was to investigate the association of maternal serum levels of chemerin, RBP-4,visfatin and insulin with GDM.

Material and Methods: This cross-sectional study was underwent in Obstetrics and Gynecology Department of Hitit University between March, 2015 and September, 2015. A total of 158 pregnant women were screened between 24 and 28 weeks of gestation for GDM according to the recommendations of The American College of Obstetricians and Gynecologists (ACOG). They were divided into two groups; GDM group (n=76, median of age: 29 and control group (n=82, median of age: 26). Maternal serum concentrations of chemerin, RBP-4, visfatin, insulin and homeostasis model assessment-insulin resistance (HOMA-IR) were assessed.

Results: There was no difference in age and gestational age at the time of study between GDM group and control group (p=0.058 and p=0.820 respectively). But the BMI of GDM group was higher than control group (p< 0.001). The serum concentrations of RBP-4, chemerin and visfatin did not demonstrate a significant difference in both groups (p=0.871, p=0.100, p=0.886 respectively). As expected, there was a significant difference in serum levels of insulin and HOMA between GDM and control groups [14.94 (1.39-32.26) vs 9.87 (3.53-23.98, p<0.001 and 3.73 (0.33-8.43) vs 1.77 (0.6-4.59), p<0.001 respectively].The insulin levels and HOMA of GDM group were significantly higher than those of control group. Correlation analyses of chemerin, RBP-4, visfatin, insulin and HOMA-IR in both groups revealed that there were a weak degree of positive correlation between maternal RBP-4 and chemerin (Spearman r=0.251, p=0.026) and a strong positive correlation between maternal insulin and HOMA (Spearman r=0.868, p<0.001).

Conclusion: Comparisons of serum chemerin, RBP-4 and visfatin in GDM does not reveal any difference in pregnants with GDM and healthy ones. We suggest that long-term observations on the adipokines during pre-pregnancy, pregnancy and postpartum period would enhance to realise the pathogenesis of GDM. Further prospective studies will be essential to elucidate the contribution of adipokines in GDM and positive correlation between maternal RBP-4 and chemerin.

Keywords: Chemerin, retinol binding protein-4, visfatin, gestational diabetes

[OP-095]

Comparison of short term perinatal outcomes in infants with early preterm intrauterine growth restriction (IUGR) of absent (or Reverse) and normal end-diastolic umbilical artery blood flow

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Objective: To evaluate the association of abnormal umbilical artery doppler parameters with the outcome of perinatal period in newborns with intrauterine growth retardation (IUGR).

Material and Methods: The research group of our study was included early preterm birth (280-336 gestational weeks) with both absent or reverse (AREDF) and normal end-diastolic umblical artery doppler (NEDF) that were complicated with IUGR. They were divided into two subgroups according to the association with AREDF and NEDF. IUGR was described as an estimated birth weight that is less than the 10th percentile for gestational age. Inclusion criteria were predefined as follows; singleton pregnancy, prenatal diagnosis of fetus with no congenital abnormality (exception of congenital cardiac anomalies mostly diagnosed after the birth). The last menstrual bleeding (with regular cycles between 28-30 days) was used to calculate an estimation of gestational week which was also confirmed by the previous ultrasound exams performed in first trimester timeline. Intrauterine fetal infections, prenatal diagnosis of congenital anomalies were excluded from the study groups.

Results: 113 pregnant women had IUGR which were associated with 86 of abnormal and 27 normal patients exposed umbilical artery doppler. There were 7 fetuses with reverse end-diastolic umbilical artery blood flow. According to seen recent menstrual period and ultrasound findings together, there were lower mean gestational week in AREDF than NEDF group (31.1±1.7 vs 32.5±1.1 p=0.001; 27.9±2.0 vs 29.4±2.0 week, p<0.001 respectively). The mean birth weight of

Table 1. Maternal and neonatal demographic characteristics of the groups

	AREDF n=87	NEDF n=26	OR	CL (95%)	p
Maternal age (year)	26.9±4.8	25.7±5.0			0.291a
Maternal BMI (kg/m^2)	28.9±4.0	28.3±5.3			0.511a
Gestational week (USG)	31.1±1.7	32.5±1.1			0.001a
Gestational week (LMP)	27.9±2.0	29.4±2.0			0.001a
Birth weight (g)	1104±309	1395±326			0.001a
Birth weight< 1000 (g)	37.2(29/78)	4.2% (1/24)	0.1	0.-0.6	0.002b
Birth weight >= 1000 and <1500 (g)	48.7%(38/78)	54.2% (13/24)	0.8	0.3-2.0	0.641b
Birth weight >= 1500 and <2500 (g)	14.1% (11/78)	41.7% (10/24)	0.2	0.1-0.6	0.003b
Oligohydramniosis	35.6% (31/87)	53.8% (14/26)	0.5	0.2-1.2	0.096b
Male neonates	58.6% (51/87)	53.8% (14/26)	0.8	0.3-2.0	0.666b
Cesarean section	88.5% (77/87)	96.2% (25/26)	3.3	0.4-26.6	0.248b
Multiparity	44.9% (35/78)	25.0% (6/24)	2.4	0.8-6.8	0.083b
Previous stillbirth history	3.4% (3/87)	7.7% (2/26)	0.4	0.1-2.7	0.356C
Previous PIH history	16.1% (14/87)	11.5% (3/26)	1.5	0.4-5.6	0.569b
Systemic disease history	7.7% (86)	12.5% (3/26)	0.6	0.1-2.5	0.468b
Corticosteroid application	92% (80/87)	76.9.% (20/26)	3.4	1.0-11.3	0.035b
Magnesium application	27.6% (24/87)	11.5% (3/26)	2.9	0.8-10.6	0.092b
Surfactant application	33.3% (26/78)	20.8%(5/24)	1.9	0.6-5.7	0.244b
Diagnosed as PIH	48.7% (55/87)	30.8% (8/26)	2.6	1.0-6.7	0.037b

PIH, Pregnancy Induced Hypertension; BMI, body mass index; LMP, last menstruel period; USG, ultrasonography; AREDF, absent or reverse end-diastolic flow; NEDF, normal end-diastolic flow; OR, Odds ratio; CI, Confidence interval. a Student's' t test (for independent samples) b Chi-Square test c Fisher's Exact test

Table 2. Perinatal outcome of the groups

	AREDF n=87	NEDF n=26	OR	CL(95%)	p
Perinatal mortality	21.8% (19/87)	11.5% (3/26)	2.1	0.6-7.9	0.244b
Stillbirth	10.3% (9/87)	7.7%(2/26)	1.4	0.3-6.9	0.689b
*Neonatal mortality	12.8% (10/78)	4.2% (1/24)	3.4	0.4-27.9	0.232b
APGAR scores <=7(1 min)	41.0% (32/78)	62.4% (15/24)	0.4	0.4-1.1	0.065b
*Presence of NICU stay	75.6% (59/78)	95.8% (24/25)	0.1	0- 1.1	0.029b
RDS*	79.5% (62/78)	79.2% (19/24)	1.0	0.3-3.1	0.973b
Pneumothorax	0% (0/78)	4.2% (1/24)	1.0	0.9-1.0	0.235c
BPD	3.8& (3/78)	4.2% (1/24)	0.9	0.1-9.3	1c
Pulmoner hypertension	5.1% (4/78)	4.2% (1/24)	1.2	0.1-11.7	1c
Intubation/mechanical	30.8% (24/78)	16.7% (4/24)	2.2	0.7-7.2	0.176b
*Hood/nasal CPAP need	73.1% (57/78)	79.2% (9/24)	0.7	0.2-2.2	0.549b
*Hyperbilirubinemia	82.1% (64/78)	70.8% (17/24)	1.9	0.7-5.4	0.235b
*Sepsis	15.4% (12/78)	0% (0/24)	1.2	1.1-1.3	0.041b
IVH	9.0 % (7/78)	8.3 % (2/24)	1.1	0.2-5.6	0.923b
Feed intolarance	44.9% (35/78)	8.3% (2/24)	9.0	2.0-40.7	0.001b
*‡PDA	21.8% (17/74)	8.3% (2/25)	3.1	0.1-14.4	0.139b
‡PFO	16.7% (13/78)	20.8%(5/24)	0.8	0.2-2.4	0.640b
Congenital heart diseases	15.4% (12/78)	8.3% (2/24)	2.0	0.4-9.6	0.380b

CI, confidence interval; NICU, neonatal intensive care unit; CPAP, continuous positive airway pressure; BPH, Bronchopulmonerdysplasia, IVH, intraventricular hemorrhage; PDA, patent ductus arteriosus. a Student's' t test (for independent samples) b Chi-Square test c Fisher's Exact test *All outcomes were analysed with the exclusion of stillbirth cases (accept only stillbirth) ‡DA & PFO were not accepted as congenital cardiac disorder. Total means alive and stillbirth (n=87 & n=26).

NEDF was significantly higher than AREDF group (1104±309 g vs 1395±326 g p<0.001). Less than 1000 g of birth weight rate of AREDF group was significantly higher (37%2 vs 4.2% p= 0.002), while more than 1500 g of birth weight rate of AREDF was statistically lower when compared to NEDF (14.1% vs 41.7% p=0.003).The ratio of corticosteroid (betamethasone) application in AREDF group was higher (92% vs 76.9% p= 0.035). AREDF group has more complicated with pregnancy induced hypertension (48.7% vs 30. 8 % p= 0.037). Shown in Table 1. Respiratory distress syndrome, surfactant use, and other respiratory problems such as pneumothorax, pulmonary hypertension and bronchopulmonary dysplasia were not statistically different in groups. Mean length of neonatal intensive care unit stay of AREDF group was significantly higher (40.6±23.0 vs 24.3±16.1 p<0.001). The sepsis ratio in AREDF group was significantly higher than NEDF group (15.4% vs 0% p=0.041). Feeding intolerance ratio was statistically increased in AREDF group when to compared NEDF group (44.9% vs 8.3% p<0.001). The ratio of congenital cardiac diseases in AREDF was higher than in NEDF, but statistically significant (15.4% vs 8.3 % p=0.380). Mortality rate in AREDF group was higher but not statistically significant (12.8% vs 4.2%). Shown in table 2.

Conclusion: The lenght of NICU day of AREDF was longer due to their lower mean birth weight and gestational age, and perinatal morbidities such as feeding intolerance, sepsis and patent ductus arteriosus. AREDF may be associated with congenital cardiac anomalies. Patients with IUGR and umblical doppler abnormalities should be close followed up because of higher rate of perinatal morbidities.

Keywords: Doppler ultrasonography, fetal growth restriction, perinatal outcome, umbilical artery

[OP-096]

Low circulating levels of Cyclophilin A (CypA) in women with polycycstic ovary syndrome

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Objective: Polycystic ovary syndrome (PCOS) is one of the most common complex endocrine pathology which is characterised by oligo/anovulation, hormonal and/or clinical hyperandrogenism, and the appearence of polycystic ovaries on ultrasound. Cyclophilin A (CypA), a 17 kDa protein, is a member of immunophilin family which is present in high abundance in all eukaryotic cells. CypA exhibit many different functions such as protein folding and trafficking during the cell homeostasis. However, CypA can be secreted in response to inflamatory stimuli and secreted CypA posses mitogenic activity via extracellular signal-regulated kinase (ERK) pathway activation. Recent reports showed that, there is a variation in the function of ERK pathway in both skeletal muscle cells and in theca cells from women with PCOS. This finding may implicate the role of abnormally reduced ERK pathway activation in the pathogenesis of insulin resistance and the excessive ovarian androgen production. Alterations in the circulating CypA level can be associated with abnormal activation of ERK pathway in the pathogenesis of PCOS. The aim of this study was to evaluate serum CypA levels in women with PCOS.

Material and Methods: Study subjects comprised of 49 patients with PCOS and 30 normal healthy volunteers. Demographic characteristics, medical history and clinical findings of all participants were recorded in a database. PCOS was described according to the European Society for Human Reproduction and Embryology and the American Society for Reproductive Medicine (ESHRE/ASRM) criteria. Serum CypA level was measured using a CypA ELISA Kit. Relationship between serum CypA levels and the clinical findings and blood markers of PCOS were also evaluated.

Results: Median serum level of CypA was lower in women with PCOS compared to the age matched control subjects (8,9 and 42,5 respectively, p < 0.001). Serum levels of total testosteron were not correlated with serum levels of CypA (r = -0,211, p = 0,06). Age, body mass index (BMI), waist-hip ratio (WHR), hirsutism score were not associated with serum CypA levels.

Conclusion: Our study demonstrated that patients with PCOS have lower circulating levels of CyPA than those of women with normal ovaries. Decreased CypA level may be related to the increased androgen production and insulin resistance in PCOS patients. Further research is needed to evaluate the association between CypA and PCOS.

Keywords: Hyperandrogenemia, insulin resistance, PCOS, Cyclophilin A

[OP-097]

The effect of first trimester fasting glucose levels on pregnancy outcome

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Objective: Screening and the diagnostic criteria of Gestational diabetes mellitus (GDM) has been the subject of considerable controversy. In 2010 International Association of Diabetes and Pregnancy Study Groups (IADPSG) suggested earlier screening for GDM and FPG (fasting plasma glucose) levels at first prenatal visit between 92 mg/dl and 126 mg/dl to be defined as GDM. In this study we aimed to identify the importance of fasting plasma glucose level in the first trimester on pregnancy outcome.

Material and Methods: This retrospective cohort study was undertaken at Zekai Tahir Burak Women's Health Care, Training and Research Hospital, Ankara, Turkey. All the patients who gave birth in our hospital and attended antenatal clinic both in the first trimester and underwent oral glucose tolerance test (OGTT) with 50g of anhydrous glucose between 24 and 28 weeks of gestation are analyzed from the hospital records and perinatal outcomes were noted. In women with first trimester fasting glucose level >=126 mg/dl and random plasma glucose level >=200 mg/dl were accepted as overt diabetes and were excluded from the study. Patients were divided into 6 groups according to FPG and 50 gr GCT status: Group 1 (in cases with first trimester fasting glucose level <92 mg/dl, 50 gr GCT92 mg/dl, 50 gr GCT within normal limits), Group 2 (in cases with first trimester fasting glucose level <92 mg/dl, 50 gr GCT>140 mg/dl and 100 gr oral glucose tolerance test (OGTT) values within normal limits), Group 3 (in cases with first trimester fasting glucose level <92 mg/dl, 50 gr GCT>140 mg/dl and at least 2 abnormal values in 100 gr OGTT), Group 4 (in cases with first trimester fasting glucose level >=92 mg/dl, 50 gr GCT within normal limits), Group 5 (in cases with first trimester fasting glucose level >=92 mg/dl, 50 gr GCT >140 mg/dl and 100 gr OGTT values within normal limits) and Group 6 (in cases with first trimester fasting glucose level >=92 mg/dl, 50 gr GCT >140 mg/dl and at least 2 abnormal values in 100 gr OGTT). Gestational week at birth, route of delivery (vaginal or cesarean), obstetric complications, birthweight, 1' and 5' apgar scores and neonatal intensive care unit (nicu) admission were compared between the groups

Results: The prevalence of GDM in our study was 2,6% (14/549). The median age was 27 (17-44), prepregnancy median BMI was 23 (14-43). Macrosomia, bithweight, preterm birth, NICU admission and meconium stained amnion was statistically different between groups (Table 1). There was no statistically significant difference between groups in terms of oligohydramnios, route of delivery, Apgar scores, growth retardation, preeclampsia and polyhydramnios.

Conclusion: These data demonstrate that higher first trimester fasting glucose levels, within what is currently considered as nondiabetic, increase the risk of adverse pregnancy outcomes. Further research is required to provide evidence of the effectiveness of early detection and treatment of women at high risk for these complications improves pregnancy outcome.

Keywords: Fasting plasma glucose, gestational diabetes mellitus, pregnancy outcome

Table 1. The percentage of adverse fetal outcome between groups

%	Meconium stained Amnion	NICU admission	Macrosomia	Preterm Birth	Polyhydramnios
Group 1	7.0	7.0	4.4	8.3	1.2
Group 2	10.4	10.4	4.2	12.5	0
Group 3	20.0	20.0	0	40	0
Group 4	1.6	1.6	13.1	3.3	1.6
Group 5	28.6	0	0	0	7.1
Group 6	0	11.1	22.2	0	11.1
p value	0.011	<0.001	0.016	0.033	0.076

[OP-098]

Nause and vomiting in pregnancy is associated with increased levels of serum growth differentiation factor 15

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Objective: Growth differentiation factor 15 (GDF-15) localizes to the decidua and syncytiotrophoblast, increases through the first trimester in serum and is suggested to play an immunomodulatory role to facilitate pregnancy success. Our objective was to measure the circulating levels of GDF-15 in pregnant women with nausea and vomiting (NV) and to compare their levels with age and body mass index (BMI) matched control pregnant.

Material and Methods: This is a case-control study. After approval of the Local Ethics Committee, the subjects were consecutively enrolled into the study in four-month period. The pregnant subjects were classified into case group diagnosed with nausea and vomiting, without methobolic disturbance, (n=40) and age and BMI matched control group without a diagnosis of nausea and vomiting (n=40) during their pregnancies. Serum GDF-15 was measured. Statistical analysis was performed using SPSS software package.

Results: The study included 40 pregnant woman with NV and 40 healthy pregnant women without NV. The groups did not differ statistically in respect to age, BMI and gestational week. The mean GDF-15 level at presentation was 1084.2 ± 177,4 pg/ml among pregnant with NV and 825.6 ± 150,2 pg/ml among with control groups. Serum GDF-15 values were significantly higher in subjects with NV compared to the control groups (p<0.001).

Conclusion: We found that NV was associated with elevated maternal serum GDF-15 levels compared to healthy pregnancies. Our study suggested that nausea and vomiting during pregnacy is a sign of well immunomodulation.

Keywords: Nause and vomiting, GDF-15

[OP-099]

The evaluation of placental apoptosis in severe preeclampsia with auto-antibodies and pro-inflammatory cytokines

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Objective: To investigate TNF-alfa, IL-10, IL-6, AT-1AA and sFlt-1 expressions in normal, severe preeclampsia and HELLP Syndrome placentae and their relation with apoptosis.

Background: Preeclampsia is one of the most important obstetric complications affecting 2-7% of all pregnancies. It is defined as presentation of hypertension and proteinuria after 20th weeks of pregnancy. It is a complicated, systemic syndrome affecting all maternal organs. Inappropriate trofoblastic invasion resulting in abnormal placenta formation and development is the most accused pathophysiology.

Material and Methods: The study was conducted in our institution with 22 normal, 22 severe preeclamptic and 22 HELLP sydrome pregnants who delivered at our perinatology clinic between October 2012- May 2015 after ethical board approval. The placentae were collected right after delivery, taken to institution`s pathology laboratory and a full-thickness tissue samples from the fetal surface of the placenta which was in 2 cm distal of the umbilical cord were taken. Serious attention was paid to take samples including chorionic plate of the placantae. All the samples were embedded in paraffin blocks and stored at room temparature. After the collection of all samples hematoxilene-eosin dye and immunhistochemical procedures were applied.

Results: We found statistically significant difference in intra-villous trombosis ($p<0.05$), pathological villi (<0.001), acute atherosclerosis ($p<0.001$)and severe chorion pathology prescence ($p<0.001$) in severe preeclapsia and HELLP Syndrome placentae compared to non-complicated placentae. Plasental AT1-AA and TNF-alfa levels were significantly different in the complicated group ($p<0.03$ and $p< 0.05$, respectively). There was no significant difference in sFlt-1 ($p>0.351$), IL-6 ($p> 0.654$) and IL-10 levels ($p>0.698$) between complicated and non-complicated placentae and also between severe preeclampsia and HELLP Syndrome groups. We also did not find any statistical difference in terms of AT1-AA, sFlt-1, IL-6, IL-10, and THF-alfa compared between gestational weeks (32 weeks and 34 weeks of gestations).

Discussion: Preeclampsia and its relevant forms continue to be the leading causes of maternal mortality. To define its pathology countless studies had been and will be done. Our study with its different population choice brings both conformation and controversies to the present literature. Plasental histological findings of this study correlates well with the previous studies in terms of acute atherozis and enlarged infarct regions in the placentae. Recent studies revealed that AT1-AA originates from abnormal placenta and causes vasoconstruction resulting in fetal blood flow resistance. We also found high AT1-AA levels severe preeclampsia placentae. The proinflamatory cytokine TNF-alfa found to be elevated in multiple studies together with our study. On the other hand although sFlt-1, IL-10 and IL-6 levels were found to be high in different studies our results did not reveal any difference. This might be the consequence of the small sample size of the previous studies as well as their lack of gestational week grouping.

Conclusion: The pathogenesis of preeclampsia and its sub-groups is unclear. Plasental apoptosis is proven in the pathophysiology of the disease and high levels of TNF-alfa and AT1-AA is strongly associated with the apopstosis.

Keywords: Preeclampsia, placental apoptosis, autoantibody, cytokines

[OP-100]

The effect of maternal obesity on the reliability of fetal biometric measurements

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Objective: Maternal obesity limits the optimal image in ultrasonographic evaluation. The Objective of this study was to evaluate the effect of maternal obesity on the reliability of fetal biometric measurements.

Material and Methods: Patients were divided into two groups based on their body mass index: $>=30$ kg/m^2 obese group and <30 kg/m^2 control group. Fetal biometric parameters were biparietal diameter, abdominal circumference and femur length. All biometric measurements were performed by two researchers. In addition, first researcher performed two measurements in same patient. Inter-observer and intra-observer correlation were analyzed.

Results: Eighty-two (57.75%) of 142 patients were obese (Table 1)

Table 1. Inter-observer and intra-observer variability results

Inter-observer viability				
	Control group	Intra Class Coefficient (ICC)	Obese group	Intra Class Coefficient (ICC)
BPD-1	90.31±2.74	0.816 (0.636-0.907)	92.11±4.3	0.743 (0.548-0.861)
BPD-2	90.21±3.3		92.23±3.67	
AC-1	343.96±21.3	0.897 (0.806-0.947)	341.3±59.23	0.488 (0.14-0.742)
AC-2	342.67±20.79		351.69±25.66	
FL-1	72.48±3.44	0.862 (0.727-0.931)	74.98±4.29	0.628 (0.377-0.793)
FL-2	72.35±3.29		74.66±4.18	
Intra-observer viability				
	Control group	Intra Class Coefficient (ICC)	Obese group	Intra Class Coefficient (ICC)
Observer-1 BPD	90.31±2.74	0.729 (0.463-0.863)	92.11±4.3	0.706 (0.492-0.840)
Observer-2 BPD	89.97±3.05		92.64±4.33	
Observer-1 AC	343.96±21.3	0.833 (0.669-0.916)	341.3±59.23	0.397 (0.194-0.696)
Observer-2 AC	341.20±19.35		352.21±27.32	
Observer-1 FL	72.48±3.44	0.733 (0.471-0.865)	74.98±4.29	0.592 (0.191-0.794)
Observer-2 FL	72.98±3.25		73.90±3.57	

Variables are given as mean ± standard deviation and ICC (lower limit- upper limit) in %95 confidence interval, BPD: Fetal biparietal diameter, AC: Fetal abdominal circumference, FL: Fetal femur length

Table 2. Study groups

	Control group	Obese group	p value
Age	31.09±6.24	29.34±7.05	0.342
Gravidity	2 (1-10)	3 (1-6)	0.310
Parity	1 (0-8)	2 (0-4)	0.312
Gestational week	39 (38-40)	38 (38-40)	0.933
Body mass index	27.6±1.93	37.95±5.06	<0.001

Values are given as mean±standard deviation and median(minimum-maximum)

Both inter-observer and intra-observer correlations were lower in obese group compared to controls (Image 1).

Conclusion: Maternal obesity decreases the reliability of fetal biometric measurements. This finding should be confirmed with more researchers in larger study populations.

Keywords: Obesity, ultrasonography, observer variation

[OP-101]

Intrahepatic choletasis of pregnancy is associated with higher human chorionic gonadotrophin MoM levels, higher incidence of gestational diabetes mellitus and insulin requirement

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Objective: Intrahepatic cholestasis of pregnancy (ICP) is one of the hepatic disturbances which are unique to the pregnancy. Its characteristic features are mild to severe pruritus and disturbed liver function tests. ICP is a reversible form of hepatic disturbances originating mainly from impaired bile flow which usually appears in the late second or third trimester and tends to dissolve rapidly after delivery. Incidence varies between 0.1%-15.6% depending on the ethnicity and region. It is the second most frequent cause of jaundice during pregnancy. Etiology is multifactorial, with a combination of hormonal and environmental factors superimposing on a genetic predisposition. Estrogens and progesterone metabolites have been demonstrated to have role in the pathogenesis. In this study we aim to investigate the association between ICP and second trimester aneuploidy screening parameters and patient characteristics.

Material and Methods: Demographic characteristics of pregnant women and measurements of maternal serum alpha fetoprotein (AFP) and human chorionic gonadotrophin (hCG) concentrations were retrospectively analyzed in relation to diagnosis of intrahepatic cholestasis in a cohort of 49 consecutive singleton pregnancies with this diagnosis from January 2012 through December 2015 at Etlik Zubeyde Hanim Women's Health Training and Research Hospital, and compared with healthy singleton control pregnancies (n=284) from the same clinic over the same period of time.

Table 1. Demographic Characteristics of the Study (Intrahepatic cholestasis of pregnancy, ICP) and Control Groups (Total n=233).

Characteristic	Control Group	Study	p value
Age (year)[1]	28.47±5.43	27.93±5.12	0.535
BMI[1]	28.9±4.12	28.95±4.89	0.962
Pregnancy Duration[1]	38.21±2.65	37.65±1.76	0.656
Neonatal birth weight[1]	3156±654	3112±477	0.161
Gravidity[2]	2 (2)	2 (2)	0.286
Parity[2]	1 (2)	1(1)	0.006*
Multiparity[3]	12 (67.4%)	25 (51%)	0.034*
Ms- AFP[2]	0.91 (0.44)	0.87 (0.47)	0.734
Ms-HCG[2]	0.99 (0.72)	1.28 (0.99)	0.005*
Ms-Estriol[2]	0.91 (0.38)	0.95 (0.49)	0.543
Induction of Labor	25 (13.6%)	15 (30.6%)	0.005*
Jaundice of Newborn	1 (0.5%)	7 (14.3%)	<0.001*

BMI, Body Mass Index; Ms-AFP, Maternal Serum Alpha-Fetoprotein; Ms-HCG, Maternal Serum Human Chorionic Gonadotropin; MoM, Multiple of the Median. [1] Data are expressed as mean±standard deviation. [2] Data are expressed as median (interquartile range). [3]Data are expressed as n (%). * Statistically significant

Table 2. Baseline medical characteristics of the Study (Intrahepatic cholestasis of pregnancy, ICP) and Control Groups (Total n=233)

Variable	Control Group	Study Group	p value
Gestational Diabetes Mellitus	11 (6%)	14 (28.6%)	<0.001[1]*
Insulin therapy	0	4 (8.2%)	0.006[1]*
Gall Bladder disease	1 (0.5%)	4 (8.2%)	0.007[1]*
Liver Disease	0 (0%)	2 (4%)	0.044[1]*
Gestational Hypertension	7 (3.8%)	2 (4.1%)	1.000[1]
Preeclampsia	3 (1.6%)	0 (0%)	1.000[1]
Drug Use	19 (10.3%)	10 (20.4%)	0.057[2]
Previous history of cholestasis	3 (1.6%)	4 (8.2%)	0.037[1]*

D&C, dilatation and curettage; IVF, in vitro fertilization; NST, non-stress test; NICU, neonatal intensive care unit. [1]Fisher's exact test has been performed instead of Chi-square test due to the expected counts less than 5. [2] Pearson Chi-Square has been performed. Data are expressed as n (%). * Statistically significant

Results: Number of parity and the percentage of multiparity were higher among control group. In relation to aneuploidy risk assessment, the median of the MoM values of hCG were significantly higher in the ICP group (p=0.005)(Table 1). Previous history of ICP as well as historty of gall bladder and hepatic diseases were significantly higher among ICP patients. Induction of labor and jaundice of newborn were significantly higher among ICP group (p=0.005 and p<0.001 respectively) (Table 2). As an interesting finding, the prevalance of gestational diabetes mellitus (GDM) and the rate of the patients who required insulin therapy were higher among ICP patients and this difference was statistically significant (p<0.001 and p=0.002 respectively) (Table 3).

Discussion: ICP is one of the important morbid complications during pregnancy. There are also findings regarding increased stillbirth and

fetal distress rates those make ICP patients classified in the high risk conditions of pregnancyI CP and its relationship with second trimester screening test markers was studied in a few papers and none of them found the same reltionship with our study. This is important because the ICP population in our study is the largest to date among papers investigating the relationship with either aFP or HCG. Also the association with GDM is an important finding which would make clinicians gain a new sight during folow-up as GDM adds a new comorbid situation to an already high-risk pregnancy. The pathogenesis of this association is not clear, and processes underlying this extensive impairment of the glucose regulation that requires insulin therapy merits further investigation.

Conclusion: Nulliparity, higher hcg MoM at the second trimester screening test are factors related to presence of ICP. Also while following patients, with either GDM or ICP, their accompanience should be kept in mind.

Keywords: Intrahepatic, cholestasis, pregnancy, HCG, GDM

[OP-102]

New screening method for prediction of preterm delivery in singleton pregnancies

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Objective: To establish a new predictive model for screening the risk of preterm delivery (PTD) before 37 weeks of gestation

Material and Methods: This is a cohort study. Between 2013-2015 all singleton pregnancies (n: 1453) with (38%, 557/1453) or without (62%, 896/1453) PTD risk factors were recruited in the study. Obstetric history, cervical length and nomogram for PTD risk factors were evaluated to establish a new screening risk assessment for PTD. All clinical variables were assessed for an association with 37 week PTD using univariable logistic regression models. Multivariable logistic regression analysis was used to identify a set of predictors. Associations were summarized using the odds ratio (OR) and corresponding 95% confidence interval (CI) estimated from the models. Type-I error rate was taken as 0.25 for candidate variables for multivariate logistic regression. Discrimination was assessed with 300 bootstrap resamples. For each bootstrap sample, a logistic regression model was fit using the variables identified in the final model and the concordance index (c-index) was calculated. The c-index is a measure of a model's predictive accuracy (discrimination). An unbiased estimate of the c-index was obtained based on averaging the 300 c-indices. Calibration was assessed graphically by examining how far the predicted probabilities are from the actual observed proportion with 37 week PTD. Statistical analyses were performed using R software. A nomogram constructed from the final model is presented in Fig. 1. For a given patient, points are assigned to each of the variables and a total score is derived. The total points score corresponds to a predicted probability of 37 week PTD. The performance of the final model was assessed through calibration and discrimination. The models had good calibration as illustrated in the calibration plot in Fig. 2. The unbiased estimate of the c-index derived from bootstrap resamples was excellent (c-index=0.746).

Results: PTD rates were 22.1%. Of those 15,8% pregnancies had at least one risk factor for PTD. Univariable analysis revealed that the most common risk factors for PTD were maternal age (74.5%), in-vitro-fertilization (29.4%), placenta previa (3.9%) respectively. The relationship between PTD and risk factors only gestational diabetes mellitus (GDM) (p:0.057, CI 0.9 - 14.1), PPROM (preterm premature rupture of membranes) (p:0.000, CI 4.2-17.5), eraly onset of uterine contractions (p:0.000, CI 2.5-9.7), second/third trimester bleeding (p:0.000, CI 4.2-17.5), 3.854-50.672), preeclampsia (p:0.000, CI 4.7-19.4), advance maternal age (p:0.000, CI 0.2-0.5), oligo/anhidramnios (p:0.000, CI 1.5-5.5), maternal hypothyroidism (p:0.000, CI 1.124-3.386) were found statistically significant (p<0.05).

Conclusion: Recently the screening method of PTD is depends on patient obstetric history and cervical length measurement by transvaginal ultrasonography. However clinical symptoms of the pregnancy such as; polihidramnios, GDM etc. are not objectively assessed. We conducted a unique statistical model for PTD. This a new model consists of not only obstetric history and short cervical length but also of the clinical symptoms to evaluate the risk of PTD more sensitive, specific and accurate. Further studies are needed to answer which preventative measures such as; cerclage, cervical pessary, progesterone on the specific conditions and the symptoms is better.

Keywords: Preterm, screening, delivery, risk factors

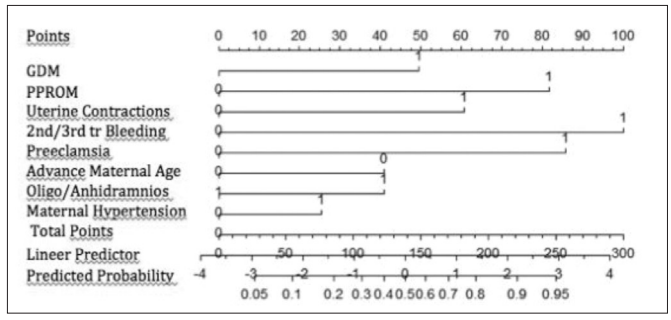

Figure 1. Nomogram for the prediction of 37 week PTD based on the final model

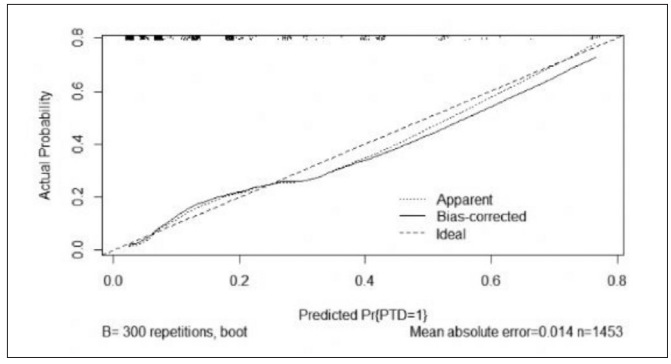

Figure 2. Calibration plot for 300 bootstarp sample

[OP-103]

Major determinants of newborn survival and duration of hospitalization at neonatal intensive care unit in pregnants with preterm premature rupture of membranes

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Objective: The aim of this study was to assess the predictors of newborn survival in pregnants with preterm premature rupture of membranes.

Material and Methods: Three hundred and eighty eight pregnants with preterm premature rupture of membranes were prospectively followed in perinatology clinic of Zeynep Kamil Women and Children's Health Training and Research Hospital between January 2013 to December 2015. Gestational age at delivery, birth weight, route of delivery,multiple pregnancy, newborn sex, maternal age, some neonatal complications including rop, nec, ıch, sepsis congenital anomalies, ıugr and maternal complications including diabetes, preeclampsia were used to predict neonatal outcome in terms of duration of hospitalization at neonatal intensive care unit and survival.

Results: IUGR, congenital cardiac anomaly, oligohydramnios, gestational age, birth weight, route of delivery, duration of latent period, rop, sepsis, chorioamnionitis, celestone, rds, nec, ich were significantly correlated with duration of hospitalization at neonatal intensive care unit ($P < 0.05$). In multivariate regression analyses, birth weight, rop, sepsis and congenital anomaly were significant confounders for duration of hospitalization at neonatal intensive care unit ($P < 0.05$). duration of hospitalization at neonatal intensive care unit, congenital anomaly, congenital cardiac anomaly, gestational age, birth weight, route of delivery, neonatal sex, rop, rds, nec, icc were significantly correlated with neonatal survival ($P < 0.05$). congenital anomaly, rop, nec, chorioamnionitis, birth weight and gestational age were significant confounders for neonatal survival.

Conclusion: Birth weight, rop and presence of congenital anomaly are common confounders for both duration of hospitalization at neonatal intensive care unit and neonatal survival.

Keywords: Preterm premature rupture of membrane, Neonatal intensive care unit(NICU), neonatal survival

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[OP-104]

Does awareness of gestational age during ultrasonographic fetal biometry affect the results: a preliminary intra-observer variability and agreement study

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Objective: To assess and to compare the intra-observer reliability and agreement for fetal biometric measurements between blinded and non-blinded sonographers for gestational ages and to determine the mean errors of these measurements in singleton pregnancies between 25 and 41 weeks of gestation.

Material and Methods: A prospective clinical study was conducted. First measurements were performed as the sonographer was unaware of patient's last menstrual period (LMP) and gestational age (GA) and results were blinded to the sonographer; the caliper displayed on the screen was veiled by a label placed on the numeric display. The same sonographer performed the measurements after learning and recording the patient's LMP and GA and was allowed to see the caliper displayed on the ultrasound screen, though operator was blinded to any pre-existing measurements. Intra-observer reliability of fetal biometry measurement was assessed and limits of agreement were calculated.

Results: There was no significant difference between the means of blinded (BM) and non-blinded measurements (NBM) except for HC ($p=0.029$). Intra-observer ICCs were very high for each biometric variable, expressed in both mm and days, and for EFW. Mean absolute errors were significantly lower for BPD, HC, AC and FL, in NBM than in BM.

Conclusion: When sonographers are aware of the LMP or are allowed to notice the GA calculated and displayed on the screen, they are more prone to approximate their measurement to the actual gestational age and hence, sonographers blinded to the GA are more likely to measure biometric parameters significantly more distant from the actual value.

Keywords: Gestational age, fetal biometry, intra-observer variability, ultrasonography

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[OP-105]

Amniotic fluid paraoxonase-1 activity, thyroid hormone concentrations and oxidative status in neural tube defects

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Objective: The aim of this study was to investigate the potential association between neural tube defects and paraoxonase-1 activity in

amniotic fluid. We studied the total oxidant status, total antioxidant capacity, paraoxonase-1 activity and thyroid hormone concentrations in amniotic fluids of foetuses with neural tube defects.

Material and Methods: The present study was performed at the Department of Obstetrics and Gynaecology and the Department of Clinical Biochemistry of Dicle University between September 2011 and June 2013. The study group included 37 amniotic fluid samples from pregnant women (16–20 weeks of gestation) with foetuses affected by neural tube defects (anencephaly, spina bifida, and encephalocele). The control group consisted of 36 pregnant women who were diagnosed with a high-risk pregnancy according to a 1st- or 2nd-trimester aneuploidy screening and were later confirmed by amniocentesis to have genetically normal foetuses.

Results: There were no significant differences between women with neural tube defects-affected pregnancies and control subjects in maternal age, gestational age, parity, smoking, consanguinity, body mass index, and pre-conception vitamin use. Amniotic fluid paraoxonase-1 activity and total oxidant status were significantly higher (p: 0. 023, p = 0. 029, respectively, in Figure 1 and 2) whereas free t4 was significantly lower (p = 0. 022; Table 2) in foetuses affected by neural tube defects compared to control subjects. In foetuses with neural tube defects, amniotic fluid paraoxonase-1 activity correlated positively with total oxidant status (r /p = 0. 424**/0. 010), and amniotic fluid total antioxidant capacity correlated positively with free t4 (r/p: 0. 381*/0. 022).

Conclusion: This is the first study in the literature to show an association between paraoxonase-1 activity and thyroid hormone concentrations and neural tube defects.

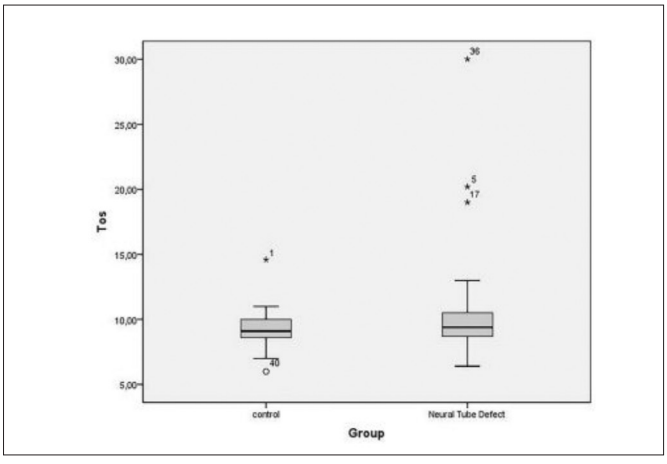

Figure 1. Comparison of PON1 levels between the groups

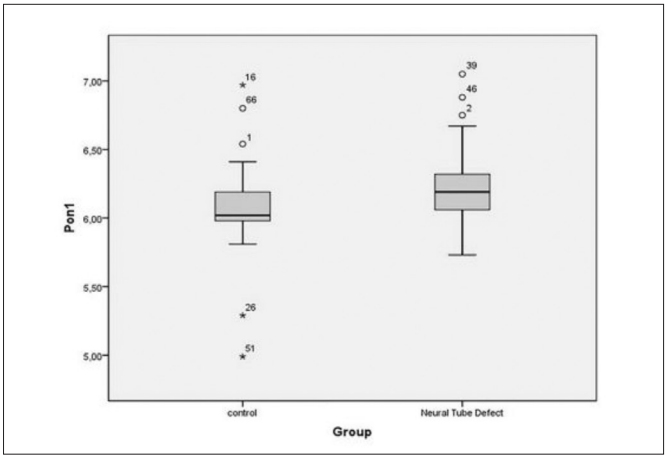

Figure 2. Comparison of TOS levels between the groups

Table 1. Comparison of biochemical characteristics between the groups

	Control	Neural tube defects	P
TSH	0.30±0.17	0.55±0.56	0.182
Ft3	1.11±0.75	0.92±0.16	0.132
Ft4	3.23±2.87	2.05±0.91	0.022
TAS	0.65±0.33	0.59±0.21	0.351
TOS	9.15±1.42	20.2±27.5	0.029
PON-1	6.01±0.57	6.94±2.92	0.023

Datas were expressed student's t test. Those that did not demonstrate a normal distribution were subject to Mann-Whitney U test. Abbreviations: Thyroid stimulant hormone (TSH), free t3 (FT3) and free t4 (FT4), Total oxidant status (TOS), Total antioxidant capacity (TAC), Paraoxanase 1 (PON1)

Table 2. Comparison of demographic characteristics between the groups

	Control	Neural tube defects	P
Age	32.87±7.17	28.9±9.56	0.116
Parite	3.11±2.40	3.95±6.02	0.506
Gestational Age	17.8±1.24	18.85±2.53	0.168
BMI	21.6±2.4	21.7±3.08	0.883
Smoking	0.34±0.48	0.34±0.48	0.999
Periconceptional vitamin supplement	0.38±0.49	0.17±0.38	0.107
Consanguinity	0.34±0.48	0.52±0.51	0.224

Datas were expressed as Student's t test. BMI: Body Mass Index

Keywords: Neural tube defect, paraoxonase-1 activity, free t4, oxidative status

[OP-108]

Accuracy of ultrasonographic fetal weight estimation: association of possible confounding factors

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Objective: To detect factors that have a negative impact on the accuracy of estimated fetal weight.

Material and Methods: This retrospective, cross-sectional study included 90 term singleton deliveries between January 2015 and January 2016 at the Department of Obstetrics and Gynecology of the Gaziosmanpasa University Hospital. Each pregnant woman hospitalised to our department for delivery, underwent sonography examination. In this evaluation, fetal presentation was confirmed, amniotic fluid index (AFI) was measured, placental location was assessed and the fetal weight was calculated by using measurements of some fetal anthropometric parameters. Fetal biometric parameters were measured within a period of 24 h before delivery. Singleton fetuses with

intact amniotic membrane, and had no detected constitutional and chromosomal abnormalities during the antenatal follow-up period, were included in our study. Patients in the active stage of labour and those with the fetal head engaged to the pelvis were excluded from the study. The sonographic measurements were performed by the same author (HYD) by using the Mindray DC-8 sonography unit, with a 3.5 MHz convex transducer. Newborns were nakedly weighed 10 min after delivery, on a digital weightbridge. Ultrasonographic measurement results were applied to Hadlock 2 fetal weight estimation model. To evaluate the accuracy of EFW the two parameters below were calculated:

Mean error (ME): is the mean of the [estimated fetal weight (EFW) minus actual birth weight (ABW)]

Mean percentage error (MPE): is the mean of the (EFW – ABW)/ABW X 100

Association among the two parameters used for the accuracy of EFW; AFI, placental location, fetal presentation and gender were evaluated. An association between AFW and fetal biometry was sought using the Spearmen's correlation. Newborns were evaluated in three subgroups in order to analyse the accuracy of Hadlock 2 regression formula over different weight ranges: <3,000 g, 3,000 – 3,500 g and >= 3,500 g. Tendency of the fetal weight estimation model towards an underestimation or overestimation was also calculated.

Results: We found no significant effect of AFI on the ME of the fetal weight measurement (p=0.152). Analysis of the association between fetal presentation and ME revealed no significant effect of fetal presentation on the ME of the fetal weight measurement (p=0.873). ME (EFW-AFW) was highest in pregnancies with lateral placental location while it was significantly different between lateral and fundal placental locations (Table 1). We found no significant association between fetal gender and ME (p=0.342). MPE that stands for 100 g of actual birth weight was, by minus 8g, the highest in fetuses above 3500g (Table 2). Each of the BPD, AC, and FL measurements were correlated with AFW. However the parameter with the highest correlation was AC (p=0.000084).

Conclusion: Fetal weight estimation is an important factor for clinical management decisions. Lateral placental location appears to have a significant effect on the accuracy of EFW. As our findings suggest that mean error of EFW tends to increase as absolute fetal weight increases, risk of underestimation of fetal weight should be kept in mind especially in macrosomic fetuses to avoid inappropriate clinical decisions.

Keywords: Fetal weight estimation, ultrasonography, absolute fetal weight

Table 1. The distribution of placental location

	Anterior (n=28)	Posterior (n=21)	Lateral (n=5)	Fundal (n=36)	P
EFW – AFW	-112,35± 325,68[a,b,c]	-162,85± 240,12[a,d,e]	-275,00± 170,04[b,d,f]	-17,30± 292,02[c,e,f]	0,148

Kruskal-Wallis test, Mann-Whitney U test. EFW, estimated fetal weight; AFW, absolute fetal weight. Intragroup comparisons: [a]: p = 0,840; [b]: p = 0,292; [c]: p = 0,226; [d]: p = 0,229; [e]: p = 0,118; [f]: p = 0,042.

Table 2. The distribution of MPE on absolute fetal weight

	< 3000 gr (n = 31)	3000 - 3500 gr (n = 37)	> 3500 gr (n = 22)	P
MPE	0,20±10,92a,b	-1,51±8,00a,c	-8,25±6,28b,c	0,000165

MPE, mean percentage error. Intragroup comparisons: a: p = 0,322; b: p = 0,00015; c: p = 0,00042.

[OP-109]

Relationship between cardiothoracic ratio and assesment of brain sparing in intrauterin growth restriction

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Objective: Brain sparing effect is defined as cerebral blood flow increasing in the intrauterin growth restricted (IUGR) fetuses. As a result of this effect, lower value of the pulsatility index (PI) is determined by Doppler ultrasound of the middle cerebral artery (MCA). Clinical studies showed an increase of cardiothoracic ratio (CTR) in chest radiographies of premature neonates with growth restriction. In addition ultrasonographic measurement of CTR is used to follow up of fetal anemia

Material and Methods: This prospective study was conducted on the 60 singleton pregnant women with IUGR fetus in 3rd trimestr. The PI was determined in the mid- or distal segment of the middle cerebral artery and patients divided into two groups (MCA-PI value below (group1, n:30) or above (group2, n:30) the 5th centile). Cardiothoracic ratio difference was investigated between two groups.

Results: The CTR is significantly different between group 1 and 2 (respectively 0.54 and 0.49) (p<0.05). Using ROC curve to anticipate the brain sparing effect, a threshold was calculated 0.51 for CTR (sensitivity 79%, specificity 76%, positive predictive value [PPV] 79%, negative predictive value [NPV] 88%).

Conclusion: This study suggest a significant association between cardiothoracic ratio and MCA-PI. Cardiothoracic ratio may be useful to follow-up of fetuses with IUGR via detecting brain sparing effect.

Keywords: Cardiothoracic ratio, intrauterine growth restriction, brain sparing effect

[OP-110]

Non-invasive prenatal testing for fetal chromosomal abnormalities: Baskent University experience

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Objective: To asses the clinical outcomes of the patients who were opted cf-DNA test for chromosomal abnormalities at tertiary referral University Hospital

Material and Methods: This is a retrospective cohort study. Between 2013-2016 all patients who had cf-DNA (cell free DNA) test results were compared with patients characteristics, pregnancies outcomes.

Results: Among the all-consecutive pregnant patients, of those 91 patients had cf-DNA test for chromosomal abnormality screening in

our clinic during the study period. Only four patients had twin pregnancy and five patients had pregnancy via ovum donation. The most common indications for the test were high risk of chromosomal abnormalities at 11-14th weeks screening (34.4%, 12/91), presence of at least one soft-marker for chromosomal abnormalities (17%, 16/91) and the physicians' suggestion (13.2%, 12/91). Mean age of the patients was 35.33 ± 4.36. 24% (22/91) of the patients were older than 35 years old. 59% (54/91) of the patients were multigravida and 52% (48/91) of the patients were nulliparous. The mean gestational age on the test day, NT-MoM, PAPPA-MoM, hCG-MoM, gestational age of delivery and newborn weight were (14.64±3.68) (min-max; 10-27), (0.95±0.25), (0.8±0.28), (1.36±0.69), (37.8±2.5), (3.106kg±0.7); respectively. The patients chose five different cf-DNA companies. Only one cf-DNA company was using SNP (Single Nucleotide Polymorphisms) technic in which was selected by 14 (15.4%) patients in our series. In all the other cases, the other companies were using massively parallel sequencing technic. The mean fetal-fraction rate was 9.73±4.26. cf-DNA test (SNP technic) result could not be given to four patients. Even though the one's results were revealed normal (low risk) via massively parallel sequencing, the fetus was die in-utero at 16 weeks of pregnancy. Amniocentesis was performed and normal karyotype was shown in second one. Third one had liver transplantation and SNP technic was not useful. The last one was a patient who had an ovum donation and SNP technic was also not good for this patient. However massively parallel sequencing was given a normal/low risk result for these patients who had no result with SNP. Only two patients' cf-DNA results were high risk for Down syndrome. Amniocentesis was performed and the patients were opted feticide because of Down syndrome. C-section rate was 31% and NICU administration was necessary to six babies after the birth. All babies are healthy and surviving from NICU discharge. Amongst the all patients two of the pregnancy are still on going and no discordant result was observed.

Conclusion: cf-DNA test is a safe, accurate, non-invasive screening method for fetal chromosomal abnormalities. To understanding the method of the test is crucial for some conditions such as transplantation and ovum donations. The test using SNP is not a good option for these pregnancies. Furthermore cf-DNA is still too expensive to become a national screening method in Turkey. Invasive tests such as amniocentesis are still only the option to diagnose the fetal chromosomal abnormalities

Keywords: NIPT, cfDNA, chromosome abnormalities, Down syndrome, screening

[OP-111]

Prenatal diagnosis of fetal urinary anomalies and antepartum approach

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Objective: Fetal urinary tract anomalies are observed in 17.3% of all neonatal anomalies, 20% of neonatal deaths and 0.65% of all pregnancies. Today, widespread use of ultrasound facilitates the prenatal diagnosis of fetal abnormalities. Urinary system abnormalities can present either in mild forms as fetal pyelectasis or lethal forms as polycystic kidney or renal agenesis. In this study, we aimed to present the prenatal approach in 59 pregnant women with ultrasound detected urinary system abnormality in prenatal period.

Material and Methods: Patients who took a diagnosis of fetal urinary tract anomaly at the Gynecology and Obstetrics Department of Dicle University Medical Faculty between January 2009 and July 2013 were evaluated retrospectively. The abnormalities confirmed by ultrasound records, birth data, and ethical committee decisions for fetal termination. Data collected included demographic information of maternal age, gravidity, parity, abortion, number of children, gestational week, and types of fetal urinary tract anomalies. Families were informed about anomaly, and fetuses incompatible with life according to gestational week and/or serious sequel possibility were terminated after the decision of ethics committee and family consent. Ultrasonography examinations were performed with Voluson 730 PRO (General Electric Healthcare, Milwaukee, WI, ABD) device.

Results: Sixty-four pregnant women with urinary tract abnormalities were included the study. The demographic data was shown in Table 1. Isolated urinary anomalies were observed in forty-nine (76.6%) pregnant women, and additional accompanying abnormalities were

Table 1. Demographic data of pregnant women

	mean±SD	min.-max.
Age	26.5±7.2	17-40
Gravidy	3.3±1.9	1-10
Parity	1.8±2.2	0-9
Abortion	0.5±0.7	0-4
Living children	1.5±2.1	0-7
Gestational week	25.5±8.1	13-38

SD: standard deviation min.: minimum max.: maximum

Table 2. The distribution of subtypes of fetal urinary anomalies

Subtypes	Patients (n)
Unilateral+bilateral pyelectasis	4 (6.3%)
Megasistis	13 (20.3%)
Posterior urethral valves (PUV)	5 (7.8%)
Polycystic kidney	22 (34.4%)
Multicystic kidney	13 (20.3%)
Renal agenesis	2 (3.1%)
Exstrophy vesicale	2 (3.1%)
Hypospadias-Epispadias	3 (4.9%)
Total	64 (100%)

found in fifteen (23.4%) women. The distribution of subtypes of fetal urinary tract anomalies was shown in Table 2. Fetal termination was applied to fifty-four (84.4%) pregnant women, one women (1.6%) rejected fetal termination, and 9 (14.1%) were followed-up.

Conclusion: Type, unilateral or bilateral localization, and severity of urinary tract anomalies, and also presence of accompanying abnormalities affect the decision of fetal termination. The high percentage of urinary tract anomalies in our center may be related with our hospital to be a tertiary health facility, utilization of sensitive imaging methods, and presence of experienced perinatologists.

Keywords: Congenital anomaly, fetal urinary tract anomalies, prenatal diagnosis, ultrasonography

[OP-114]

Preoperative differentiation between malignant and benign ovarian masses in patients with normal CA-125 levels

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Objective: Ovarian malignancy is the major lethal gynecologic malignity and it is usually diagnosed lately in advanced stages. Serum CA-125 level, ultrasonographic features of the adnexal mass and combination of these with menopausal status have been reported to be used as cancer associated markers. In this work, we aimed to determine the diagnostic values of some clinical and ultrasonographic features for predicting ovarian malignancies in patients with normal serum CA-125 levels.

Material and Methods: All of the eighty-four patients who were diagnosed with ovarian malignancy and 168 patients with benign adnexal mass had normal CA-125 levels, and recruited as study and control groups, respectively. Individual characteristics, ultrasonographic features, and risk of malignancy index (RMI) values of the groups were compared retrospectively.

Results: The ages, mean postmenopausal period of the postmenopausal women in the malignant group were significantly higher than the benign group. Nulliparity rates were similar in the two groups. The number of menopausal patients was significantly higher in the malignant group. Median cyst diameter and RMI values were significantly higher, and bilaterality and presence of solid area were more frequent in this group. Logistic regression model showed that ovarian cysts larger than 8 cm [Odds ratio (OR): 7.012; p<0.001; 95% Confidence interval (CI): 3.463-14.198], presence of solid area within the cyst [OR: 7.43; p<0.001; 95% CI: 3.799-14.532], and postmenopausal state [OR: 2.893; p=0.027; 95% CI: 1.129-7.412] were found to be significant factors to predict malignancy.

Conclusion: Ovarian malignancies in patients with normal CA-125 values are frequently diagnosed in early stages of the disease. Ovarian cysts larger than 8 cm, presence of solid area within the cyst, and menopausal status are the most important risk factors for ovarian malignancies in these patients.

Keywords: CA-125, histological type, ovarian cancer, risk of malignancy index, tumor marker

Table 1. Comparison of the individual characteristics of the groups

Characteristics	Malignant group (n=84)	Benign group (n=168)	p value
Age (years)	47.6±15.3	40.1±11.0	<0.001
Nullipara n (%)	16 (19)	38 (22.6)	0.515
Menopause score>1 n(%)	36 (41.7)	29 (17.3)	<0.001
USG score>1 n(%)	21 (25)	7 (4.2)	<0.001
Bilaterality [n(%)]	10 (11.9)	8 (4.8)	0.038
Ascites [n(%)]	2 (2.4)	1 (0.6)	0.255
Solid area	59 (70.2)	42 (25)	<0.001
Multilocularity	18 (16.1)	27 (21.4)	0.295
CA125 (IU/mL, median± Interquartile range)	17.5±13.9	15.3±12.3	0.189
Mass diameter (mm, median±Interquartile range)	90.5±64.5	62±29.7	<0.001
Risk of malignancy index (median±Interquartile range)	28.3±32.8	18.4±15.5	<0.001

Table 2. Multivariate binomial logistic regression analysis showing the predictive values of individual risk factors for malignancy

Outcome: Malignancy	Wald	p value	Odds Ratio	95% Confidence interval
Solid area	34.339	<0.001	7.430	3.799-14.532
Postmenopausal state	4.894	0.027	2.893	1.129-7.412
Bilaterality	1.047	0.306	1.881	0.561-6.309
Age > 45 years	1.348	0.246	1.677	0.701-4.012
Median mass diameter	29.280	<0.001	7.012	3.463-14.198

[OP-115]

Myometrial invasion in endometrial cancer patients: can magnetic resonans imaging predict the myometrial invasion before surgery?

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Objective: To investigate the value of magnetic resonans imaging (MRI) for detecting preoperative myometrial invasion in endometrial cancer patients.

Material and Methods: Among EC patients with preoperative MRI were included in this study. The data of patients were recorded from their files. MRI reports and MI status in final pathological examination after surgery were compared. The predicting value for MI presence was evaluated.

Results: Totally, 38 patients who were obtained preoperative MRI enrolled into the study. The age of the patients were 37-87, mean

58.8±1.2. The EC was diagnosed by endometial biopsy. All patients were surgically staged as total abdminal hysterectomy, bilateral salphingooopherectomy, pelvic paraaortic lymphadenectomy. The sensitivity, specifity and diagnostic accuracy of MRI assessment of MI were 66.6%, 100% and 68.4%.

Conclusion: The assessment of the MI presence in EC patients by preoperative MRI is a valuable method. But,only upon the basis of MRI findings is not sufficient for deciding treatment plan (surgical staging), yet.

Keywords: Magnetic resonans imaging, endometrial cancer, myometrial invasion

[OP-116]

The utility of tumor markers and neutrophil lymphocyte ratio in patients with an intraoperative diagnosis of mucinous borderline ovarian tumor

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Objective: To evaluate the utility of tumor markers and complete blood count to increase the diagnostic accuracy to detect malignant cases that are intraoperatively reported as mucinous borderline ovarian tumors (BOT).

Material and Methods: Patients who underwent laparotomy at our gynecologic oncology clinic between 2007 and 2015 for evaluation of an adnexal mass with an intraoperative frozen section report of mucinous BOT were retrospectively analyzed. Patients were grouped according to the final pathological diagnoses (malignant, borderline and benign), and were compared in terms of tumor marker levels and complete blood count parameters. Significant parameters were evaluated together with frozen section results, and were assessed for diagnostic accuracy.

Results: A total of 63 patients were included in the study. Of these, 41 patients had borderline, 11 patients had benign, and 11 patients had malignant mucinous ovarian tumors. Patient age, menopausal status, hemoglobin, platelet and lymphocyte counts were similar among the groups (p>0.05). On the other hand, white blood cell, neutrophil counts and neutrophil/lymphocyte ratio (NLR) were significantly higher in malignant cases (p<0.05). Similarly, CA125 and CA19-9 were significantly higher in malignant group (p<0.05) (Table 1). When evaluated with the frozen section results, CA19-9 and NLR had the highest sensitivity to detect mucinous cancers (81 and 78 percent, respectively) (Table 2).

Conclusion: In patients who have an intraoperative frozen section diagnosis of borderline mucinous ovarian tumors, CA19-9, NLR and CA125 were significant predictors of malignancy. In light of larger future studies, we believe that integrating these parameters into routine clinical practice may decrease the rate of under diagnosis.

Keywords: Mucinous borderline tumor, frozen section, diagnosis, malignancy

Table 1. Comparison of tumor marker levels between final pathological diagnoses mucinous BOT and mucinous carcinoma groups

Parameters	Mucinous BOT[2] cases (n=41) Mean± SD	Malignant cases (n=11) Mean±SD	p value
Ca19-9	39.7±20.1	58.8±19.9	0.001
Ca125	61.7±65.2	104.1±58.1	0.001
CEA[1]	4.4±7.1	4.6±12.1	NS
AFP[3]	3.4±6.2	4.2±7.3	NS

[1]CEA: Carcino Embryonic Antigen; [2]BOT: Borderline ovarian tumor; [3]AFP: Alfa Feto Protein. Student-t test was used to compare the groups

Table 2. The diagnostic values of parameters to increase the accuracy of frozen section in mucinous ovarian carcinomas

Parameter	Cut-off	AUC[1]	Sensitivity	Specificity	PPV[2]	NPV[3]
Ca19-9	41.2	0.827	81.39	67.17	51.85	79.65
Ca-125	50.5	0.773	72.63	71.89	52.75	81.87
NLR°	2.18	0.718	78.02	64.45	49.58	73.36
Neutrophil	5.15	0.615	66.25	60.83	47.68	65.17

°NLR: Neutrophil/lymphocyte ratio, [1]AUC: Area Under Curve, [2]PPV: Positive Predictive Value, [3]NPV: Negative Predictive Value

[OP-117]

The determination of loneliness levels of woman with gynecological cancer

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Objective: This study is conducted to determine the issues and loneliness levels of women with gynecological cancer.

Material and Methods: The scope of this descriptive study is woman with gynecological cancer in the department of obstetrics and gynecology of a university hospital. The study was carried between April 2015 and June 2015, and 703 patients participated in the study, 294 of these patients were excluded because of reference again. Twenty percent of 409 patients were selected with simple random method (81 patients). Eleven of these 81 patients did not answer all questions in the questionnaire. Finally, 70 patients participated in the study. The data of the study was obtained through face to face interview technique. The informed concent was obtained from the ethics committee of Cukurova University. The questionnaire consists of two parts: sociodemographic characteristics that have 39 questions, and UCLA loneliness scale that measures loneliness levels. SPSS 15 software was used for data analysis. T-test and ANOVA test were used for statistical analysis.

Results: The main age of the women was 54.8±9.8 years old. The average score of UCLA-LS scale is 34.6±10.4. The degrees of lone-

liness of patiens are: 60% of patients in low level, 30% of patients in moderate level, and 10% of patients in high level. There is statistical significance between marital status, educational status of husband, financial status that meet the costs of illness conditions and degree of loneliness (p=0.039, p=0.011, p=0.049, p=0.002 respectively). There is not statistical significance between educational status, disease symptoms, disease stage, type of treatment and degree of loneliness (p=0.139, p=0.810, p=0.083, p=0.814 respectively). There is not statistical significance between diagnosis, relationship with husband, sex life, reproductive action and degree of loneliness (p=0.450, p=0.260, p=0.071 respectively). There is statistical significance between diagnosis and motherhood/duty of her husband (p=0.020).

Conclusion: The loneliness level of women are associated with many factors. The using of psycological support, consulting services, and supporting factors will reduce the level of loneliness.

Keywords: Gynecological cancer, Endometrium cancer, loneliness, gynecological diseases

[OP-118]

Prognostic factors on endometrial cancer; how accurate?

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Table 1. Tumor characteristics of sugically treated 268 patients with endometrial cancer

	Patients (n)	%
Grade		
1	68	25.4
2	136	50.7
3	64	23.9
Stage		
1	221	82.8
2	16	6
3	29	10.8
4	3	1.1
Histological type		
Endometrioid	257	95.9
Non –endometrioid	11	4.1
Myometrial invasion		
<½	155	57.8
>½	113	42.1
Lymphovasculer space invasion		
+	97	36.2
-	171	63.8

Table 2. Results of analysis; differences in disease spesific, overall and progression free survival according to prognostic factors (5 year)

	Overall survival		Disease spesific survival		Progression free survival	
Prognostic factors	**(%)**	**P value**	**(%)**	**P value**	**(%)**	**P value**
Age						
>50	0.853		0.85		0.811	
<50	0.857	0.817	0.89		0.864	0.789
Histological type						
Endometrioid	0.896		0.928		0.863	
Non-endometrioid	0.24	<0.01	0.246	<0.01	0.226	<0.01
Myometrialin vasion						
> ½	0.751		0.856		0.736	
< ½	0.936	0.063	0.927	0.034	0.892	0.035
Tumor grade						
G1- G2	0.949-0.934		0.96-0.949		0.929-0.914	
G3	0.602	<0.01	0.635	<0.01	0.542	<0.01
Lymphovascular space invasion						
LVSI -	0.93		0.975		0.921	
LVSI +	0.75	<0.01	0.75	<0.01	0.680	<0.01
Tumor size						
>2 cm	0.84		0.872		0.787	
<2 cm	0.853	0.341	0.88	0.666	0.839	0.312

Objective: The aim of the study reported here is to assess the effect of the prognostic factors on overall, disease spesisific and progression free survival in endometrial cancer.

Material and Mehtods: This was a single center retrospective clinic study. We evaluated 308 patients with endometrial cancer diagnosis. Surgery was performed correspondingly clinical staging and preoperative evaluation. The pathology specimen was reassessed by one specialist. Age, lymphovascular space invasion, myometrial invasion, histologic subtype, grade and tumor size was assesed. The effect of prognostic factor on overall survival, disease spesific survival and progression free survival was estimated acoording to Kaplan-Meier and Cox proportion analysis.

Results: The mean follow up is 42 months.Grade scoring was done in two classified system as one group consist of G1 and G2 and the other group G3. Histologic subtype was divided as endometrioid and non endometrioid type. The statistically significant independent variables affecting disease spesific survival and progression free survival were histologic subtype, grade and lymphavascular space invasion. Myometrial invasion has also influence on survival. Tumor size and age did not effect survival in our study. While classifing patients these results should be considered as it would be usefull for choosing adjuvant therapy and follow-up.

Conclusion: LVSI is an indepent factor on both progression free survival and overall survival besides the only independent factor in disease spesific survival. While plannig postoperative treatment LVSI status should be evaluated. These patients should be considered at high risk for recurrence. These patients are candidates for agressive adjuvant

treatment and frequent follow-up. Beside LVSI grade and histologic type are indepent risk factors on survival. But grade should be assesed in two classified system to have better interpretion of results and having more simplified and effective system.

Keywords: Endometrial cancer, prognostic factor, survival

[OP-119]

Colposcopic evaluation of pre and postmenapausal women with abnormal cervical cytologies

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Objective: We aimed to evaluate the eficacy of conventional cytology by comparing the results of colposcopic biopsies to detect precancerous lesions in pre and postmenopausal women with abnormal cervical cytologies.

Material and Methods: Between January 2010 -December 2014 we reviewed retrospectively patients who underwent colposcopic examination in clinic of obstetrics and gynecology of Bakirkoy Dr Sadi Konuk Teaching and Research Hospital. The women evaluated according to menopausal status, abnormal cervical cytologies and colposcopic examination results. NCSS (Number Cruncher Statistical System) for statistical analysis was used.

Table 1. The relationship between cervical cytology and colposcopy findings

	Colposcopy	Cervical cytology Benign	ASCUS	ASC-H	LSIL	HSIL
Premenopause	Benign, no biopsy	354 (83.1)	373 (64.1)	10 (33.3)	101 (48.8)	7 (16.7)
	CIN I	62 (14.6)	169 (29)*	9 (30)	85 (41.1) *	9 (21.4)
	CIN II&III&SCC	10 (2.3)	40 (6.9)	11 (36.7)	21 (10.1) *	26 (61.9)
	Total	426 (100)	582 (100)	30 (100)	207 (100)	42 (100)
Postmenopause	Benign, no biopsy	113 (87.6)	120 (77.4) *	5 (35.7)	27 (71.1)*	5 (20)
	CIN I	14 (10.9)	28 (18.1)	1 (7.1)	10 (26.3)	6 (24)
	CIN II&III&SCC	2 (1.6)	7 (4.5)	8 (57.1)	1 (2.6)	14 (56)
	Total	129 (100)	155 (100)	14 (100)	38 (100)	25 (100)
p- value		a0.468	a0.007**	b0.223	a0.032*	b0.889

aPearson Ki-kare test bFisher Freeman Halton test *p<0.05 **p<0.01 ASCUS;Atypical squamous cells - unknown significance, ASC-H;Atypical squamous cells where a high-grade lesion cannot be eliminated, LSIL; Low-grade squamous intraepithelial lesion, HSIL; High-grade squamous intraepithelial lesion, CIN;Cervical intraepithelial neoplasia. SCC;Squamose cell carsinoma

Results: Patient population (n=1658) composed of 1289 premenopausal (77.7%) and 369 postmenopausal (22.3%) women. According to the results of cervical cytologies; benign ASCUS, ASC-H were not found statistically significant between two groups. LSIL; in premenopausal group, and HSIL in the postmenopausal group were found significantly higher (respectively p:0.006; p=0.002; p<0.01). When colposcopic results were evaluated; benign findings in postmenopausal women and CIN I in premenopausal women were found significantly higher (respectively p=0.001; p=0.001; p<0.05).When postmenopausal patients with ASCUS cytology were evaluated, benign biopsy rate was significantly higher in colposcopy, on the other hand, CIN I ratio was significantly higher in premenopausal group with ASCUS cytology (p: 0.007, p<0.01).When patients with LSIL were evaluated, normal biopsy rate in colposcopy was higher in postmenopausal patients, CIN I and CIN II-C III-SCC rates were found in highly significant in premenopausal patients (p=0.032; p<0.05).There is no significant difference between two groups in terms of ASC-H and HSIL.

Conclusion: Conventional cytology in postmenopausal patients compared with premenopausal patients seems to be less effective in detecting precancerous lesions therefore immediate colposcopy may be appropriate in postmenopausal women. Routine liquid based cytology and HPV screening can achieve clarity in this debate, Screening programs should be implemented effectively especially in postmenopausal group and further large scale studies are needed.

Keywords: Cervical cytology, menopause, colposcopy, precancerous cervical lesions

[OP-122]

Lymph node metastasis predictors in endometrial cancer; nomogram constructed by clinical and pathologic risk factors

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Objective: Lymphadenectomy is performed as a routine part of surgery by most of the gynecologic surgeons. However, several authors do not suggest it for clinically suspected early stage endometrial cancer because there is no randomized evidence showing a therapeutic evidence. Also, surgical morbidity or lymphoedema/lymphocyst formation risks are increased by performing lymphadenectomy. In addition, a considerable amount of pathology specimens from simple hysterectomy for benign diseases or endometrial hyperplasia include incidental endometrial cancer. The aim of the present study was to determine the clinical and pathologic risk factors for lymh node metastasis (LNM) in patients with endometrial cancer and to create a nomogram to predict LNM.

Material and Methods: All patients with endometrial adenocarcinoma who were treated surgically at a university based gynecologic oncology clinic between January 2011 and December 2014 were recruited in

Table 1. Baseline characteristics and pathologic parameters of the study groups

	LNM (+) (n=31)	LNM (-) (n=248)	P
Age (years), mean±SD	62±13	61±10	0.657
CA125>35 U/mL, n (%)	15 (48.4)	20 (8.1)	<0.001
LVSI, n (%)	29 (93.5)	78 (32.6)	<0.001
Myometrial invasion >=50%, n (%)	27 (87.1)	101 (40.9)	<0.001
Grade 3 disease, n (%)	20 (64.5)	49 (19.8)	<0.001
Non-endometrioid cell type, n (%)	9 (29)	17 (6.9)	0.001
Cervical stromal involvement, n (%)	16 (51.6)	21 (8.5)	<0.001
Tumor size >2 cm, n (%)	20 (74.1)	140 (70.7)	0.823

Table 2. Multivariate analysis of predictive factors for lymph node metastasis using logistic regression models

	OR	95% CI	P
LVSI	23.67	4.84-115-60	<0.001
Non-endometrioid	7.57	1.56-36.73	0.012
CA125>35 U/mL	3.99	1.32-11.97	0.014
Cervical stromal involvement	3.30	1.14-9.53	0.027

LVSI: lymphovascular space invasion; OR: odds ratio; CI: confidence interval

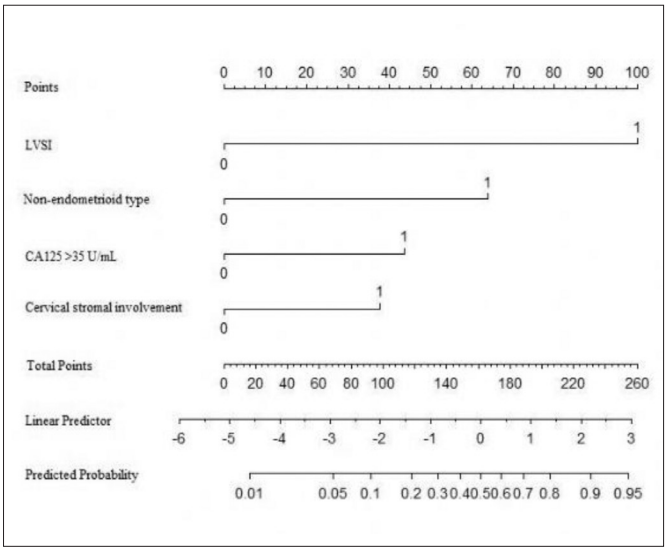

Figure 1. Nomogram for the prediction of LNM based on the final model

this retrospective cohort study. Women with endometrial adenocarcinoma who were surgically staged including lymphadenectomy were included in the study. The patients with other uterine malignancies with sarcoma, leiomyosarcoma and carcinosarcoma were excluded. Data regarding clinical and pathologic risk factors were recorded. The pathology slides from the staging surgeries were re-evaluated microscopically by a gynecologic pathologist for all parameters along with lymphovascular space invasion (LVSI).

Results: A total of 279 patients with endometrial cancer were analyzed. Among those, 31 (11.1%) had lymph node metastasis. According to the univariate analyses elevated CA 125 (>35 U/mL), LVSI, myometrial invasion >=50%, Grade 3 disease, non-endometrioid type, and cervical stromal involvement were significantly associated with LNM (Table 1). The multivariate logistic regression analysis showed that LVSI, non-endometrioid type, elevated CA 125, and cervical stromal involvement increased the risk of LNM (Table 2). However, myometrial invasion and grade did not significantly affect the risk of LNM. The nomogram constructed from the final multivariate model is presented in Figure 1. For a given patient, points are assigned to each of the predictor variables in the nomogram and a total score is derived from the sum of present variables. The optimal cut-off for total point that we get any patient was calculated as 92. This cut off value (0.10) points out the line at which the sensitivity is 0.968 and specificity is 0.674.

Conclusion: LVSI is the most important predictor for LNM. The present nomogram can be used to decide adjuvant therapy for patients with incidentally attained endometrial cancer diagnosis and to decide lymphadenectomy if frozen section for LVSI is available in clinically suspected early stage endometrial cancer patients.

Keywords: Endometrial cancer, lymph node metastasis, lymphovascular space invasion, nomogram

[OP-123]

Comparison of the outcomes of optimal cytoreductive surgery achieved in stage IIIC serous papillary epithelial ovarian cancer at different centers: is experience important?

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Objective: There has been a slight improvement in ovarian cancer survival in parallel to the advances both in surgical techniques and chemotherapeutic regimens; however, five-year survival rate still re-

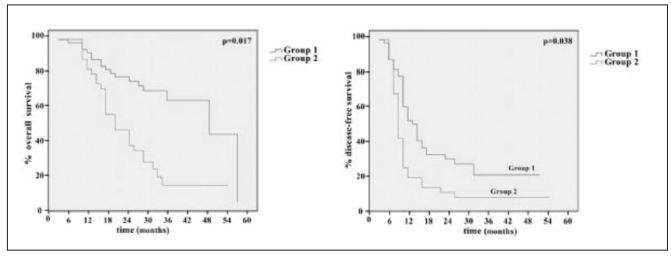

Figure 1. Disease-free and overall survival for both groups

Table 1. Demographic and operative characteristics of the groups

	Group 1 (n=49)	Group 2 (n=33)	p
Age (years)*	49.59±9.01	52.87±9.66	0.201
Parity*	2±1.69	2.12±1.49	0.937
Preoperative Ca125 level (IU/mL)*	1012±1560.19	654±899.7	0.342
Ascites (n, %)			
+	22 (44.9%)	17 (51.5%)	0.556
-	27 (55.1%)	16 (48.5%)	
Cytology (n, %)			
+	30 (61.2%)	22 (66.7%)	0.616
-	19 (38.8%)	11 (33.3%)	
Neoadjuvant chemotherapy			
(n, %) +	2 (4.1%)	1 (3%)	0.804
-	47 (95.9%)	32 (97%)	
The number of lymph nodes removed (n, %)**			
Pelvic	26 (0-60)	19 (0-47)	0.026
Lower paraaortic	6 (0-19)	3 (0-13)	0.021
High paraaortic	4 (0-21)	2 (0-12)	0.029
The number of positive lymph nodes (n, %) **			
Pelvic	2 (0-20)	0 (0-19)	0.001
Lower paraaortic	0 (0-12)	0 (0-5)	0.034
High paraaortic	0 (0-6)	0 (0-4)	0.028
The number of total lymph nodes**	38 (0-82)	30 (0-71)	0.015
Omentum volume (cm^3)*	909.53±226.14	785.77±266.97	0.017
Grade (n,%)			
1	-	-	
2	12 (24.5%)	12 (36.4%)	0.247
3	37 (75.5%)	21 (63.6%)	
Ca125 level after adjuvant treatment (IU/mL)*	37.65±83.81	48.77±59.72	0.293
Recurrence (n, %)			
+	38 (77.6%)	32 (97%)	0.023
-	11 (22.4%)	1 (3%)	
Recurrence Ca125 level (IU/mL)*	309.81±327.3	233.12±225.83	0.571
Secondary cytoreduction (n, %)			
+	24 (49%)	16 (48.5%)	0.965
-	25 (51%)	17 (51.5%)	
Current status (n,%)			
Alive	30 (61.2%)	6 (18.2%)	0.001
Dead	19 (38.8%)	27 (81.8%)	
The total follow-up time*	51.82±26.96	46.88±20.49	0.570

*Values were given as mean±standart deviation **Values were given as median, minimum/maximum

mains far less than the desired. Survival not only depends on the stage and type of the tumor, but also on the surgical experience, resectability of the tumor, and the ability of patient to tolerate extensive surgery. The aim of the present study was to compare recurrence and survival rates of gynecologic oncology patients, who were operated by experienced gynecologic oncologists, with recurrence and survival rates of patients, who underwent optimal cytoreductive surgery in a center not designated as a specific oncology center.

Material and Methods: The study included 82 patients with FIGO Stage 3C serous papillary ovarian cancer that underwent optimal cytoreductive surgery between 2001 and 2015. The centers were divided into two groups, as designated experienced clinics providing gynecologic oncology training (Group 1) and non-academic centers that do not provide training (Group 2). The study compared surgical parameters, recurrence rates, and overall and disease-free survival rates between the groups.

Results: The median duration of follow-up was 51 months in Group 1 (min: 4 months, max: 113 months) and 46 months in Group 2 (min: 13 months, max: 106 months). Demographic data, operative data and comparisons are provided in table 1. The median disease-free survival was 16 months (1-101 months) in Group 1 and 9 months (4-106 months) in Group 2 (p=0.038). The median overall survival was 51 months (4-113 months) in Group 1 and 35 months (13-106 months) in Group 2 (p=0.017) (Figure 1). During the follow-up period, 19 patients (38.8%) in Group 1 and 27 patients (81.8%) in Group 2 died from disease.

Conclusion: The treatment of ovarian cancer requires a multidisciplinary approach (involving a surgeon, pathologist, medical oncologist, chemotherapy nurse, etc.). Optimal surgery is of particular importance to successful treatment and requires a close collaboration between gynecologic oncologist and surgical oncologist. The results of the current study emphasize the importance of optimal surgery as well as surgical education and experience in the treatment of ovarian cancer.

Keywords: Optimal cytoreduction, ovarian cancer, surgical experience, survival

[OP-124]

The outcomes of fertility-sparing surgery in epithelial ovarian cancer

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Objective: Although conservative surgery has long been discussed as a treatment option in women with ovarian cancer at reproductive age, current guidelines recommend conservative surgery only in selected patients. There is a recent interest on pregnancy and delivery rates after fertility-sparing surgery (FSS), and there are ongoing studies on this subject. The aim of the present study was to evaluate survival and pregnancy outcomes in patients that underwent FSS at various centers.

Material and Methods: The present retrospective study included 19 patients, who underwent fertility-sparing surgery due to invasive epithelial ovarian cancer between 2002 and 2014.

Results: The median duration of follow-up was 59.5 months (range 10-152 months). The mean age was 26.89±5.57 years (range 18-38

Table 1. Baseline characteristics and pathologic parameters of the study groups

Patient	Age	Parity*	Histology	Grade	Surgery	Stage
1	29	0	Endometrioid	1	USO+Omm+BPPALND	1A
2	26	0	Serous	2	USO+Omm+BPPALND+APP	1C
3	27	0	Endometrioid	2	USO+Omm+BPPALND	1A
4	24	1	Serous	1	USO+Omm+BPPALND+APP	1A
5	21	1	Endometrioid	1	USO	1A
6	33	0	Endometrioid	2	USO+Omm+BPPALND	1C
7	24	0	Mucinous	2	USO+Omm+BPPALND+APP	1A
8	29	0	Endometrioid	1	USO+Omm+BPPALND	1A
9	24	0	Mucinous	1	USO+Omm+PL	1A
10	18	0	Serous	1	USO+Omm+BPPALND	1A
11	38	0	Endometrioid	1	USO+Omm+BPPALND+APP	1A
12	27	0	Serous	1	USO+Omm+BPPALND+APP	1A
13	19	0	Mucinous	1	USO+Omm+BPPALND	1C
14	33	0	Serous	1	USO+Omm+BPPALND+APP	1A
15	27	1	Mucinous	1	USO+Omm	1A
16	30	1	Mucinous	1	USO+Omm+BPPALND+APP	1C
17	23	0	Mucinous	1	USO+Omm	1A
18	22	0	Endometrioid	1	USO+Omm+BPPALND	1C
19	37	0	Serous	1	USO+Omm+PL	1A

*Before initial diagnosis, USO: unilateral salpingo-oophorectomy; Omm:omentectomy; BPPALND: bilateral pelvic-paraaortic lympnode dissection; PL: pelvic lympnode dissection; APP: appendectomy

years). Fifteen patients (78.9%) were nulliparous. The mean Ca125 level at the time of diagnosis was 193.4±161.7 U/ml (range 25-550). Of these patients, 6 (31.6%) had serous ovarian tumor, 6 (31.6%) had mucinous tumor, and 7 (36.8%) had endometrioid tumor. Of the patients, 14 had stage IA tumor (73.7%) and 5 (26.3%) had stage IC tumor. Clinical and histopathological characteristics of the patients are summarized in Table 1.

Five patients placed on paclitaxel+platinum-based adjuvant chemotherapy (Ctx). Of these patients, 2 (40%) received 4 cycles of chemotherapy and 3 patients (60%) received 6 cycles of chemotherapy. None of these patients underwent second look surgery. Following FSS, 10 full-term pregnancies and 3 spontaneous abortions occurred in 7 patients (36.8%). No congenital abnormality was reported in any of the babies. Ten patients (52.6%) underwent prophylactic surgery after a median duration of 49 months (range 16-119 months). Intra-operative and follow-up data of the patients are summarized in Table 2. During a median follow-up period of 59.5 months (range 10-152), 2 patients (10.5%) developed recurrent disease after prophylactic surgery. The patient number 2 underwent repeat surgery 2 years after primary surgery due to recurrent disease in the pelvic area. This surgery involved TAH + USO + PABPLND + Total Omm. The patient died 7 months after the second surgery. The patient number 16 had a live birth 24 months after primary surgery and complementary surgery was performed. The patient developed widespread recurrent disease 32 months after primary surgery for which a secondary cytoreductive surgery was performed. The patient died 43 months after primary surgery.

Conclusion: Accurate staging in patients with early stage epithelial ovarian cancer and regular follow-up of the patients has shown promising reproductive outcomes. In light of the current data, conservative (fertility-sparing surgery) needs to be taken into consideration in selected patients with stage I epithelial ovarian cancer. However, there is still no consensus on the selection criteria of eligible patients for fertility-sparing surgery.

Table 2. Operative and follow-up results of the patients

Patient	The number of pelvic lymph nodes removed	The number of paraaortic lymph nodes removed	The number of live birth after surgery	Prophylactic surgery at x months	Recurrence	Follow-up (months)
1	19	2	-	-	No	13
2	21	20	-	-	Yes	29
3	18	12	2	47	No	63
4	31	20	1	49	No	52
5	-	-	-	-	No	28
6	12	4	1	29	No	137
7	21	-	-	-	No	43
8	30	5	-	-	No	28
9	9	-	2	62	No	120
10	10	5	-	-	No	45
11	24	12	-	37	No	59
12	19	9	1	-	No	48
13	14	10	2	119	No	125
14	56	12	-	70	No	87
15	-	-	-	-	No	25
16	25	2	1	16	Yes	43
17	-	-	-	-	No	25
18	25	10	-	-	No	10
19	11	5	-	59	No	152

Keywords: Epithelial ovarian cancer, fertility-sparing surgery, surgical staging

[OP-126]

The efficacy of preoperative positron emission tomography-computed tomography (PET-CT) for detection of lymph node metastasis in endometrial cancer

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In this study, we aimed to analyse the prediction of preoperative positron emission tomography-computed tomography (PET-CT) for detection of lymph node metastasis in endometrial cancer.

60 with endometrial cancer were imaged with 18F-fluoro-2-deoxy-D-glucose-positron emission tomography/computed tomography before lymphadenectomy. We evaluated the diagnostic performance of 18F-fluoro-2-deoxy-D-glucose-positron emission tomography/computed tomography for detection of bilateral iliac lymph nodes and para-aortic lymph nodes. All of the patient's materials were evaluated using the final pathological diagnoses as the golden standard.

We calculated the sensitivity, specificity, positive predictive value and negative predictive value of 18F-fluoro-2-deoxy-D-glucose-positron emission tomography/computed tomography in endometrium canser patients.

After comparing the results of pathological and PET-CT, we found left and right iliac lymph nodes' sensitivity % 85, specificity % 100, positive predictive value % 100 and negative predictive value % 98 and para-aortic lymph nodes' sensitivity % 50, specificity % 100, positive predictive value % 100 and negative predictive value % 96.

The efficacy of positron emission tomography/computed tomography regarding the detection of lymph node metastasis in endometrial cancer might be high enough to evaluate pelvic lypmh nodes but not para-aortic lymph nodes because of low sensitivity.

Keywords: Positron-emission tomography, diagnostic imaging, lymphatic metastasis, endometrium cancer, clinical oncology

[OP-127]

A comparative study of FIGO 1988 versus 2009 staging for endometrial carcinoma

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Objective: The aim of this study was to investigate the benefit of new revised The International Federation of Gynecology and Obstetrics (FIGO)2009 sytem and whether there was a difference in new system comparison to 1988 FİGO staging sytem for endometrial carcinoma.

Material and Methods: A total of 132 patients who were performed complete surgical staging for endometrial cancer were enrolled retrospectively. Those patients' overall survival and disease free survival were compared with 1988 and 2009 staging system.

Results: The five year overall survival (OS) rates for patients with 1988 FİGO stage 1 and 2 were 97% and 100%, respectively. In 2009 system the OS rates for 1 and 2 were 97% and 100%, respectively. There was no statistically significant difference between stage 1 and stage 2 for OS rates in 1988 and 2009 as well.

Conclusion: New revised system could be less complex for understanding but it does not discriminate survival rates better; especially in earlier stages. A new staging system and uniform surgical staging could be discussed.

Keywords: Endometrial carcinoma, FIGO staging, overall survival and disease free survival rate

Table 1. Survival analysis of old stage and new stage

old stage	n	5 years overall survive rate (%)	Dissease free survival rate (%)	SD%	new stage (n)	5 years overall survive rate (%)	Dissease free survival rate (%)	SD%
Stage 1	99	97	88	2	107	97	87	2
Stage 2	11	100	81	18	7	100	86	12
Stage 3	22	49	21	12	18	37	7	14

[OP-128]

Impact of thrombophilic gene mutations on postoperative thrombosis risk in patients with malign and benign gynecologic conditions: a prospective study

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Objective: To investigate thrombosis risk and impact of thrombophilic gene mutations in gynecologic benign and malign conditions.

Material and Methods: Fifty-three patients who underwent surgery because of malign reasons between January and December 2012 were involved. Forty-five patients with gynecologic benign conditions were randomized as control group. Patients having thrombosis history in the background and family and tendencies towards thrombophilia, heart failure, using oral contraceptive, antiaggregant drugs, hormone replacement therapy, tamoxifen and glucocorticoids, were excluded. All patients were followed for 6 weeks post-operatively regarding thrombosis. According to Modified Caprini risk assessment model for venous thromboembolism in general surgical patients, thrombosis prophylaxis protocol was given. Age, operation indication, existence of thrombosis history in patients or in their families, body mass index, duration of stay in the hospital, postoperative antiaggregant use, smoking, type and stage of malignity of patients were recorded. Peripheral venous blood samples were drawn in preoperative period in order to evaluate the existence of factor V leiden (FVL) and prothrombin gene (PTG) mutation.

Results: PTG mutation was detected in 2 (1.9%) patient in malignancy group, it was found in 2 (4.3%) patients in control group (p=0.596). FVL mutation was detected in 2 patients in both groups (3.8% in malign group, 4.3% in benign group, p=0.596). Thromboembolism occurred in one (1.9%) patient diagnosed with advanced stage endometrium cancer, no thrombosis development were observed in control group.

Conclusion: Preoperative FVL and PTG mutation scanning on patients operated with benign and malign indications does not have additional contribution to clinical practice.

Keywords: Thrombosis, factor V leiden, prothrombin, gene mutation, postoperative

[OP-129]

Questioning the efficacy of uterine factors to determine lymphatic spread in endometrioid endometrial cancer: overtreatment is the main issue

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Objective: Endometrial cancer (EC) has been surgically staged since 1988, however there is a continuing debate over the limits of surgery regarding the necessity of lymph node dissection. Recent studies have shown that using surgicopathological factors for intraoperative decision making are sensitive enough to find the patients with lymphatic spread but not specific, thus related with unnecessary lymphatic dissections in most cases. In this study we aimed to evaluate the efficacy of major uterine factors to determine lymphatic spread and to describe a model for prediction of lymph node metastasis in EC.

Material and Methods: This retrospective study included patients with EC who underwent surgery at Department of Gynecologic Oncology of Etlik Zubeyde Hanim Teaching and Research Hospital from January 1993 to December 2015. Inclusion criterion was having systematic pelvic and paraaortic lymph node dissection and endometrioid type of EC according to permanent paraffin section. Patients with evidence of intraperitoneal tumor spillage clinically or pathologically were excluded. Chi-square test was used to evaluate the relation between uterine factors and lymphatic spread. ANOVA test was used to assess the association between FIGO grade and tumor size.

Results: 368 patients were included. The mean age of the study group was 59 years (range; 37- 83 years). Mean tumor size in the study group was 41 mm (range: 4-335 mm) and 307 (83.4%) had tumors larger than 2 cm. 14 patients (3.8%) had no myometrial invasion whereas 168 (45.7%) had < ½ myometrial invasion and 186 (50.5%) had >= ½ myometrial invasion depth. 127 (34.3%) had FIGO grade 1 histology, 166 (45.1%) had grade 2 and 75 (20.4%) had grade 3 disease. 55 (14.9) patients were found to have lymphatic metastasis. Univariate analysis showed that tumor size and depth of myometrial invasion but not FIGO grade was related with lymphatic spread (Table 1). Multivariate model analysis using various configurations of these uterine factors also revealed that histological grading was not suggestive of lymph node metastasis independent of myometrial invasion depth and tumor size (Table 2).

Conclusion: In our series of 368 endometrioid EC patients with comprehensive staging, we showed that 85% of patients had negative lymph nodes which means most patients with endometrioid histology underwent an unnecessary and potentially morbid procedure. Only 30% of patients with deep myometrial invasion, tumor size larger than 4 cm and grade III disease were found to have positive lymph nodes with the use of multivariate high risk model (Table 2). These results can be interpreted as the inaccuracy of current dependence on uterine factors for the decision of lymphatic dissection and underlies the urgent need for further research to develop new models for selecting patients with possible nodal spread who may possibly benefit lymphadenectomy.

Keywords: Endometrial cancer, lymphadenectomy, nodal metastasis, surgical decision making

Table 1. The relationship between tumor size, depth of myometrial invasion, FIGO grade and lymph node metastasis

Factors	Positive lymph node metastasis (%)	p value
Tumor size		
<=2 cm	4.9	0.016
>2 cm	16.9	
Depth of myometrial invasion		
No invasion	0	<0.0001
Myometrial invasion < 1/2	7.7	
Myometrial invasion >= 1/2	22.6	
FIGO grade		
1	15.7	0.131
2	11.4	
3	21.3	

Table 2. Lymph node metastasis according to configuration of tumor size, depth of myometrial invasion and FIGO grade

Tumor size	Depth of myometrial invasion	FIGO grade	Number of patients (metastatic/ total	Lymph node metastasis (%)
<= 2 cm	No invasion	1	0/2	0
<= 2 cm	No invasion	2	0/5	0
<= 2 cm	No invasion	3	-/-	-
<= 2 cm	Myometrial invasion < 1/2	1	0/7	0
<= 2 cm	Myometrial invasion < 1/2	2	0/18	0
<= 2 cm	Myometrial invasion < 1/2	3	0/18	10
<= 2 cm	Myometrial invasion >= 1/2	1	1/7	14,3
<= 2 cm	Myometrial invasion >= 1/2	2	1/9	11,1
<= 2 cm	Myometrial invasion >= 1/2	3	0/3	0
> 2 cm	No invasion	1	0/4	0
> 2 cm	No invasion	2	0/2	0
> 2 cm	No invasion	3	0/1	0
> 2 cm	Myometrial invasion < 1/2	1	5/48	10,4
> 2 cm	Myometrial invasion < 1/2	2	4/66	6,1
> 2 cm	Myometrial invasion < 1/2	3	3/19	15,8
> 2 cm	Myometrial invasion >= 1/2	1	14/59	23,7
> 2 cm	Myometrial invasion >= 1/2	2	14/66	21,2
> 2 cm	Myometrial invasion >= 1/2	3	12/42	28,6

[OP-130]

The impact of tumor size on predicting lymph node metastasis in endometrial carcinoma

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Objective: Lymph node metastasis (LNM) has an important influence on survival in endometrial carcinoma (EC) and LNM occurs about 5-15%. If the LNM group of patients predicted before or during surgery, then the remaining patients could avoid exposure to lymph node dissection (LND). Tumor size (TS) is one of risk factors associated with lymph node spread and we aimed to evaluate the impact of TS on predicting LNM during surgery.

Material and Methods: Patient chart information of 40 patients who had been treated by surgical staging and applied frozen section peroperatively at Ankara Oncology Education and Research Hospital due to EC between July 2014 and March 2016 were retrospectively reviewed. Factors that were likely to have an effect on LNM in all patients, such as histological type, grade (G), myometrial invasion (MI), cervical invasion and TS were analyzed. Patients were separated into three groups and TS was studied as >2 cm, >3 cm and >4 cm related to LNM defined as risk groups.

Results: The mean age of the patients was 59.09 ± 9.14 years (range 38-79, median 59). Three patients had LNM (7.5%) out of 40 surgically staged EC patients. The stages were seen as 75% (n=30), 7.5% (n=3), 5.0% (n=2), 5.0% (n=2), 5.0% (n=2), 2.5% (n=1) according to the 2009 International Federation of Gynecology and Obstetrics (FIGO) stages IA, IB, II, IIIA, IIIC1 and IIIC2. There were 28 (70.0%), 21 (52.5%) and 11 (27.5%) patients, as TS >2 cm, > 3 cm and >4 cm, respectively. All patients with <=2 cm TS (n=12, 30.0%) were stage IA and all patients with LNM (n=3, 7.5%) were >3 cm TS.

Conclusion: In this study, in EC patients with <=3 cm TS (47.5%) showed no LNM. Tumor size might have a value in predicting LNM and deciding LND in EC during surgery.

Keywords: Endometrial cancer, tumor size, lymph node metastasis

[OP-131]

The distribution of abnormal cervical cancer screening results in different age groups: A tertiary center experience

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Objective: Cervical cancer is common among women worldwide. Most cases occur in developing countries. Cervical cancer screening are used to detect precancerous lesions and early-stage disease. Conventional PAP smear test is the most performed screening modality in clinical practice. The prevalence of cervical cancer in our country was detected as 4.6/100.000 in 2013 by The Turkish Public Health Organization and The Society for Fighting Against Cancer. Also, cervical cancer was determined as the 9th most frequent cancer in our population. Here we aimed to investigate the distribution of abnormal cervical cancer screening results in different age groups.

Material and Methods: A total of 6536 women who attended to the gynecology outpatient clinics of our tertiary care center between June 2014 and December 2014 were included in this study. Cervical screening results which has been interpreted by the experienced gynecopathologists in our hospital according to the Bethesda Classification were analyzed retrospectively. Women with a history of prior questionable screening result, an immunosuppressive status, and women who were referred to our institution after an abnormal screening had been detected in another institution were excluded from the study.

Results: The ages of included patients ranged between 17 and 90 (Table 1). The report of unspecified atypical squamous cells (ASC-US) was more frequent in patients older than 65 years, and secondarily in the 40-49 age range. The atypical squamous cells indistinguishable from high grade lesion (ASC-H) was mostly reported in patients whose ages ranged between 40 and 49. Low-grade squamous intraepithelial lesion (LSIL) was seen mostly in patients between the ages of 50 and 65 years. The participants with both atypical glandular cells (AGC) and high-grade squamous intraepithelial lesion (HSIL) were more frequent in patients between the ages of 40 and 65 years, concurrently. Squamous cell cancer was mostly encountered between the ages of 40 and 65 years, while adenocarcinoma was predominantly seen between the ages of 30 and 39 years.

Conclusion: Because of the high prevalence of abnormal screening results beyond 30 years of age, it is a need that a policy should be implemented to put forth an age range specifically designed for individuals in our country. Currently, various multi-center studies are carried on to find out an optimal screening strategy.

Keywords: Abnormal test, cancer, cervical screening

Table 1. The distribution of screening results regarding different age groups

Screening Result	< 21 years (n=68)	21-29 years (n=961)	30-39 years (n=1625)	40-49 years (n=1777)	50-65 years (n=1853)	> 65 years (n=252)
Normal/ Inflammatory cytology	65 (95.6)	926 (96.4)	1562 (96.1)	1658 (93.3)	1750 (94.4)	232 (92.1)
ASC-US	2 (2.9)	29 (3)	47 (2.9)	94 (5.3)	75 (4)	15 (6)
ASC-H	0	1 (0.1)	1 (0.1)	4 (0.2)	0	0
AGC	0	1 (0.1)	1 (0.1)	2 (0.1)	2 (0.1)	0
LSIL	1 (1.5)	4 (0.4)	8 (0.5)	11 (0.6)	17 (0.9)	2 (0.8)
HSIL	0	0	4 (0.2)	7 (0.4)	7 (0.4)	0
Squamous cell cancer	0	0	0	1 (0.1)	1 (0.1)	1 (0.4)
Adenocarcinoma	0	0	2 (0.1)	0	1 (0.1)	2 (0.8)

AGC, atypical glandular cells; ASC-H, atypical squamous cells indistinguishable from high grade lesion; ASC-US, unspecified atypical squamous cells; HSIL, high-grade squamous intraepithelial lesion; LSIL, low-grade squamous intraepithelial lesion. Values were given as number (percentage)

[OP-132]

Cytoreductive surgery in advanced stage germ cell tumors of ovary

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Objective: To evaluate the survival effect of cytoreductive surgery in advanced stage germ cell tumors (GCT) of ovary.

Material and Methods: Clinicopathological data of patients with ovarian GCT that were treated between 1991 and 2014 were retrieved from the computerized database of Etlik Zubeyde Hanim Teaching and Research Hospital. The Kaplan-Meier method was used to estimate overall survival (OS) and disease free survival (DFS), and survival differences were analyzed by the log-rank test. Maximal debulking was defined as no gross residual tumor after primary or recurrence surgery; optimal and suboptimal debulking were used for patients with residual tumors of <=1cm and >1cm, respectively.

Results: In total, 106 patients with GCT were analyzed. There were 31 patients with advanced stage disease. The mean age at diagnosis was 23.4 (±9,7) years. The median follow-up duration was 50 months (range, 1-243 months). According to FIGO 2014 Ovarian Cancer Staging system; 13 patients were stage IIIA1, 3 patients were stage IIIB, 14 patients were stage IIIC and one patient was stage IVB. Of these 31 patients; 7 patients underwent sub-optimal debulking, 5 patients had optimal surgery and 18 had maximal debulking. In follow-up period, 5 patients had recurrence and 3 patients died from disease. 3 of 5 patients with recurrent disease had sub-optimal surgery, 1 had optimal surgery and 1 had maximal debulking procedure. Five-year DFS according to surgical resection rates were 57.1% in suboptimal debulking group, 75% in optimal debulking group and 93.3% in maximal cytoreduction group (p=0.017) (Figure 1). Three of seven patients who underwent sub-optimal debulking were died of disease, however no deaths were seen in patients with optimal and maximal debulking. Five-year OS was 32.1% in suboptimal debulking group, and 100% in optimal and maximal debulking groups (p=0.001) (Figure 2).

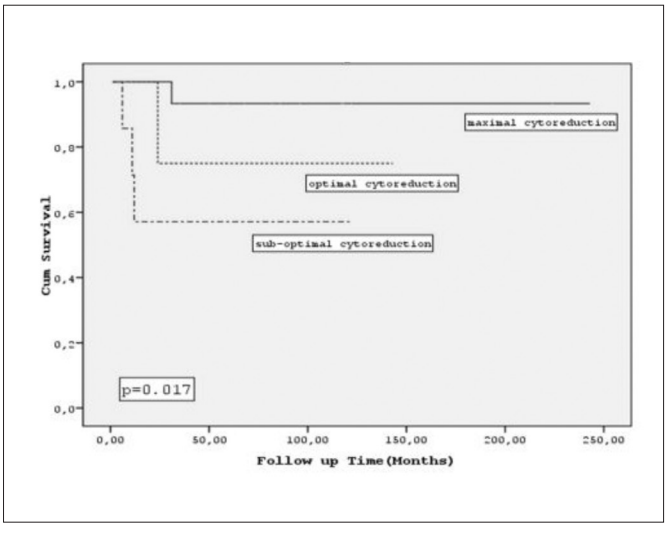

Figure 1. Disease free survival in advanced stage germ cell tumor of ovary

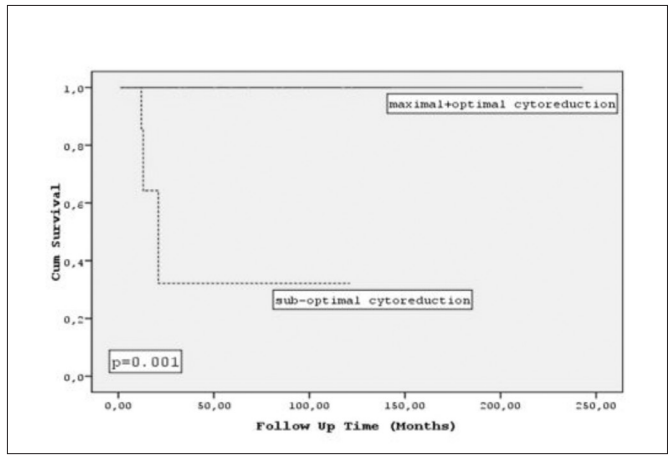

Figure 2. Overall survival in advanced stage germ cell tumor of ovary

Conclusion: The benefit of cytoreductive surgery is less well-established in GCT of ovary compared to ovarian tumors of epithelial origin due to rareness of this histological subtype. Patients with GCT are usually younger and preservation of fertility is an important issue which may lead to suboptimal procedures, sometimes in exchange for diminished survival. Our data demonstrated that maximal cytoreduction should be aimed in patients with advanced stage GCT, as it is significantly associated with improved overall survival. Although germ cell tumors are very sensitive to chemotherapy and there is an established consensus of treating residual disease with chemo cycles to sustain fertility, initial maximal surgical effort may stand for a matter of life and death in patients with advanced stage GCT.

Keywords: Germ cell tumor, cytoreductive surgery, survival

[OP-133]

Evaluation of patients with atypical squamous cells-cannot exclude high-grade squamous intraepithelial lesion for histological diagnosis of cervical intraepithelial neoplasia of grade 2 or more severe disease

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Objective: To estimate predictors for histological diagnosis of cervical intraepithelial neoplasia of grade 2 or more severe disease (+CIN 2) in patients with atypical squamous cells-cannot exclude high-grade squamous intraepithelial lesion (ASC-H) on cervical cytology.

Material and Methods: We retrospectively reviewed the patients with ASC-H who had undergone colposcopic biopsy between the years 2007-2015. Age, parity, menapousal status, marriage status, smoking habitus, high risk Human Papilloma Virus (HR-HPV) status were investigated for diagnosis of +CIN 2 in colposcopy-guided biopsy. The forward likelihood ratio method was used and significance was set at p <0.05.

Results: 93 patients with ASC-H were undergone colposcopy-guided bioopsy. Mean age of the patients was 39.37±1.03 (20-63) and 32 (36.8%) were smokers. HPV test was performed to 30 patients and 10

(33.3%) were HR-HPV positive (+). Histologic diagnosis were reported as normal in 44 (47.3%), CIN 1 in 10 (10.8%), CIN 2 in 24 (25.8%), CIN 3 in 12 (12.9%) and cervical cancer in three (3.2%) patients. Mean age of +CIN 2 patients were 41.13±10.45 compared with 36.92±8.61 for patients with less severe disease (p:0.042). Nine of 10 (90%) HR-HPV (+) patients and 18 of 32 (56.2%) smokers had +CIN 2 lesions whereas two of 20 (10%) HR-HPV negative (-) patients and 18 of 55 (32.7%) non-smokers had +CIN 2 lesions (p values were, <0.001 and 0.03 for HR-HPV and smoking status respectively). According to regression analysis (+) HR-HPV test was the only predictor [vs. (-) HR-HPVtest; OR 6.351; 95% CI 3.673–8.947, p=0.014].

Conclusion: Colposcopic evaluation, biopsy sampling and histological diagnosis should be performed carefully for ASC-H patients, especially if they are HR-HPV positive.

Keywords: ASC-H, cervical cancer, Colposcopy, HPV, Leep

[OP-134]

Isolated brain involvement in endometrium cancer from case report to meta-analysis: Different face of neuro-invasion from endometrium cancer

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Objective: The aim of this meta-analysis is to evaluate treatment options and post-brain involvement survival (PBIS) of patients with isolated brain involvement from endometrium cancer (EC).

Material and Methods: The literature electronic search was conducted from 1972 to January 2016 to identify articles about isolated brain recurrence after initial treatment of EC and only brain involvement from EC at the initial diagnosis. Forty-seven articles were found. After comprehensively evaluation of case series and case reports, the study included 42 cases. Eleven patients (26%) had isolated brain involvement from EC at initial diagnosis, 31 (74%) had isolated brain recurrence. Subgroup analysis was performed in 26 patients with brain recurrence from endometrioid type EC.

Results: The median age of the patients at initial diagnosis was 57 years. Type of tumor was endometrioid in 35 patients. Poor differentiation were determined in 30 patients (71.4%). Twenty-nine patients (69%) had single brain lesion. Lesion was found in supratentorial part of the brain in 30 patients (71.4%). Median PBIS for all cohort was 12 months (range; 0.25 to 85 months) with 2-year PBIS 51%. Age, tumor type, grade, disease-free interval, diagnosis time of brain involvement, localization and number of brain lesion didn't predict PBIS. 2-year PBIS was 32% higher in recurrent patients compared to patients who

Table 1. The factors predicting post brain involvement survival in all cohort and in patients with isolated brain recurrence from endometrioid type adenocarcinoma

Characteristics		All cohort n= 42		Patients with brain recurrence from EAC, n=26	
		2-year PBIS (%)	p value	2-year PBIS (%)	p value
Age at initial diagnosis[1]	<57 years >=57 years	55 46	0.491	65 39	0.197
Tumor type	Endometrioid Non-endometrioid	49 60	0.666	- -	NC
Grade	1 & 2 3	83 51	0.606	83 49	0.642
Diagnosis time of brain lesion	Initial diagnosis Recurrence	27 59	0.087	- -	NC
Disease free interval[1]	<10 months >=10 months	42 57	0.341	34 68	0.331[2]
Localizations of brain lesion	Supratentorial Infratentorial Both	59 None 50	0.970	55 None -	0.110
Number of brain lesion	Single Multiple	56 33	0.177	55 30	0.353
Therapy for brain lesion	Only surgery Surgery+radiotherapy	19 87	0.002*	None 90	0.027*
	Only surgery Only radiotherapy	19 20	0.430	None 25	0.098
	Surgery+radiotherapy Surgery+radiotherapy+chemotherapy	87 60	0.139	90 75	0.147
	Only radiotherapy Surgery+radiotherapy	20 87	0.003*	25 90	0.012*
	Surgery Therapy without surgery	60 21	0.048*	68 25	0.056

PBIS: Post brain involvement survival; BR: Brain recurrence; EAC: Endometrioid type adenocarcinoma; NC: No compared; 1: Median value, 2: Disease free interval in patients with BR in EAC; Median value 13 months (<13 months vs. >=13 months), *p<0.05

had brain involvement at initial diagnosis (59% and 27%, respectively). This result was a statistically trend toward significance (p=0.087). Patients who underwent surgery for brain lesion had higher PBIS than those without surgery (p=0.048). 2-year PBIS was 87% in patients who underwent surgical resection and radiotherapy, while it was 19% in only surgical resection group, and 20% in only primary radiotherapy group (p=0.002 and p=0.003, respectively). Chemotherapy didn't improved PBIS. PBIS for patients with BR from endometrioid type EC was 52% in subgroup analysis. Age, tumor type, grade, disease-free interval, localization and number of brain lesion did not predict PBIS similar with all cohort. The results of treatment were similar with all cohort except the patients who had surgical therapy as a part of treatment compared with patients who treated without surgery (p=0.056). Results of survival was shown in table 1 in detail.

Conclusion: Even though neuro-invasion from EC appears mostly as a late event and with a disseminated disease, there are a considerable amount of patients with isolated brain involvement who would have a higher chance of curability. This meta-analysis showed that survival after brain involvement in isolated brain recurrence is better than those with isolated brain involvement at the initial diagnosis. Surgery with radiotherapy is the rational current management option and this improves the survival for isolated brain involvement from EC.

Keywords: Endometrium cancer, Isolated brain recurrence, Neuro-invasion, Post-brain involvement survival

[OP-135]

Analyzing patients who are positive for high risk human papilloma virus other than types 16 and 18

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Objective: To investigate cytologic and histologic outcomes of patients who test positive for high risk human papilloma virus (HR-HPV) other than types 16 and 18.

Material and Methods: We reviewed clinical and pathological features of patients who test positive for HR-HPV other than types 16 and 18 between 2007-2015 at Baskent University Hospital in Ankara. We used real-time polymerase chain reaction (PCR) using a commercial kit

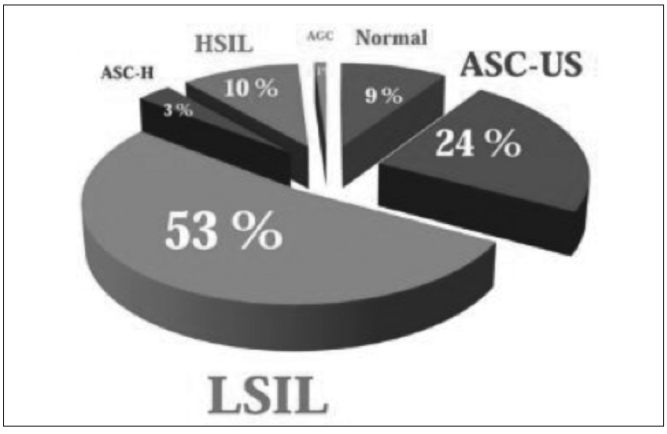

Figure 1. Cytologic outcomes of patients who are positive for high risk human papilloma virus other than types 16 and 18

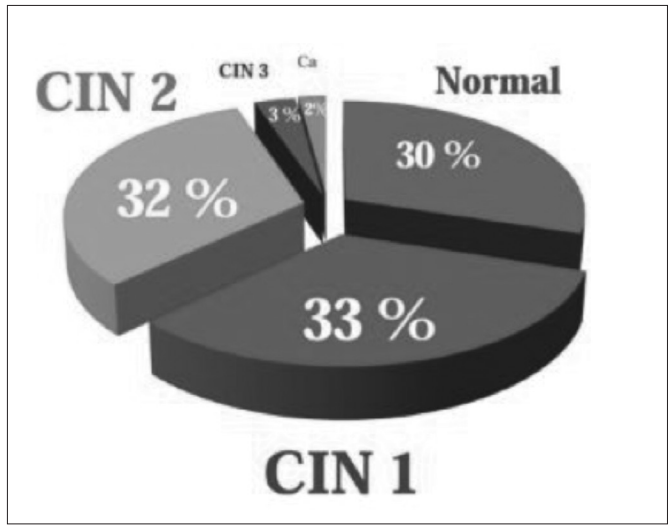

Figure 2. Histologic outcomes of patients who are positive for high risk human papilloma virus other than types 16 and 18

(Fluorion, Iontek, Turkey). Patients were positive for any of the following HPV types 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66 and 68 in the cervical smear samples. All patients were undergone cytology testing and colposcopy guided biopsy.

Results: 97 patients were included in the present study. Median patient age was 34 years (25th–75th percentiles: 22–46 years) and 55.7% were nullipar. Cytology was abnormal in 88 (81.7%) patients (Figure 1). Histologic diagnosis showed that 29 (29.9%) patients had normal results however 37 (38.1%) patients had cervical intraepithelial neoplasia grade 2 or more severe disease (Figure 2).

Conclusion: Majority of patients who are positive for HR-HPV other than types 16 and 18 have cytologic abnormalities however they have normal or low grade cervical premalignant lesions.

Keywords: Cervical cancer, colposcopy, cytology, HPV, Leep

[OP-136]

Colposcopy-guided punch or loop biopsy for each grade of abnormal epithelial cytology

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Objective: To compare the detection rates of cervical intraepithelial neoplasia of grade 2 or more severe disease (+CIN 2) using colposcopy-guided punch and loop biopsy for guidance in choosing the colposcopic biopsy method for each grade of abnormal epithelial cytology.

Material and Methods: Between 2007 and 2015, 1231 women with atypical squamous-cells of undetermined significance (ASC-US); low-grade squamous intraepithelial lesions (LSILs); atypical squamous cells, cannot exclude high-grade squamous intraepithelial lesions (ASC-Hs); or high-grade squamous intraepithelial lesions (HSILs) randomly underwent either punch biopsy or loop biopsy. Detection rates for +CIN 2 using both methods were investigated using the chi-square or Fisher's exact test.

Results: For HSIL, loop biopsy achieved a higher +CIN 2 detection rate relative to punch biopsy (81.8% vs 53.3%; p<0.001). However both biopsy methods had similar +CIN 2 detection rates for ASC-US (17.4% vs 16.4%; p=0.851), LSIL (27.6% vs 26.5%; p=0.835) and ASC-H (44.0% vs 26.2%; p=0.295). The biopsy methods achieved similar +CIN 2 detection rates in HR-HPV+ abnormal epithelial cytologies with the exception of HSIL (94.3% vs 66.7%; p=0.02).

Conclusion: As loop biopsy had higher +CIN2 detection rates, it should be preferred for patients with HSIL. Addition of HR-HPV test to cytology did not support the use of a specific biopsy method.

Keywords: Cervical cancer, colposcopy, HPV, Leep

[OP-137]

Area under the curve of estradiol monitorisation: A novel approach to evaluate detrimental effect of estrogen exposure on implantation along the COH: A prospective data analyses

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Objective: The aim of this study is to assess the utility of area under the curve of estradiol monitorisation during ART cycles to predict failure of implantation and clinical pregnancy.

Material and Methods: Area under the curve of estradiol monitorisation during ART cycles were compared between the age and BMI matched groups of infertile women with (n=109) and without (n=173) successful embryo implantation.

Results: Comparison of groups with and without positive clinical implantation showed a significant difference between the groups in terms of area under the curve of estradiol monitorisation, estradiol per day and the endometrial thickness at trigger day (p=0.05). Additionally, comparison of groups with and without positive clinical pregnancy showed a significant difference between the groups in terms of area under the curve of estradiol monitorisation, estradiol per day and the endometrial thickness at trigger day (p=0.05).

Conclusion: Calculation of the area under the curve of estradiol monitorisation during ART cycles may be used to predict failure of implantation and clinical pregnancy and may be used to select candidates for freeze all policy.

Keywords: Area under the curve of estradiol monitorisation, artificial reproductive techniques, implantation, clinical pregnancy

[OP-138]

Is there a relationship between ovarian reserve tests with depression and anxiety scales

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Objective: The aim of the present study was to investigate whether there was an association between ovarian reserve tests and depression and anxiety scales.

Material and Methods: A total of 50 women with primary infertility were eligible for the study. Anti-mullerian hormone, follicle stimulating hormone, luteinizing hormone and estradiol levels were assessed for establishing ovarian reserve. All participants completed standardized questionnaires assessing depression (Beck Depression Inventory) and anxiety (Beck Anxiety Inventory).

Results: Both depression and anxiety scores were positively correlated with age, body mass index (BMI), duration of infertility, and diminished ovarian reserve (p<0.05). Regression analyses showed that lower AMH levels (p<0.001), higher BMI (p<0.05) and longer duration of infertility (p<0.05) were the predictors of both higher depression and anxiety scores.

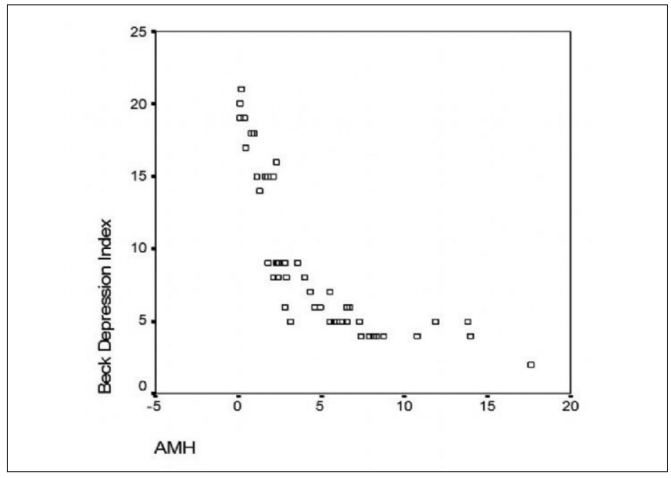

Figure 1. Distribution of BDI scores with regard to AMH levels

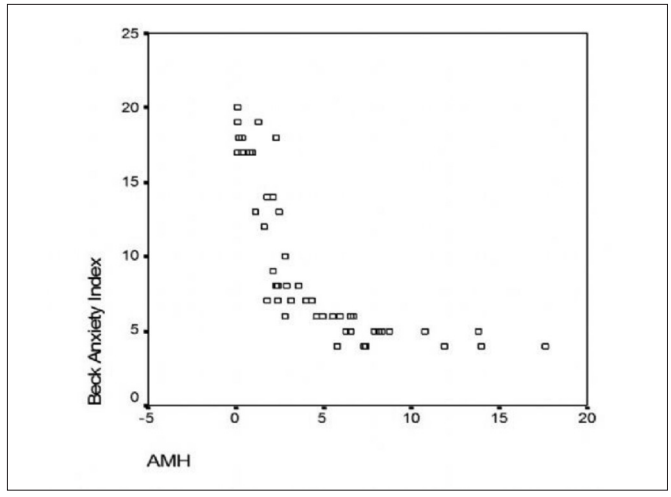

Figure 2. Distribution of BAI scores with regard to AMH levels

Table 1. Demographic, clinical and psychological characteristics of the participants

Characteristics	n=50
Age (years)	27.8±5.0
Duration of infertility (months)	29 (12-96)
Employee	8 (16.0%)
BMI (kg/m^2)	26.2±4.7
FSH	4.8 (1.7-32.0)
LH	5.7 (1.4-49.0)
E2	47.0 (13.0-131.0)
AMH	3.3 (0.1-17.6)
BDI	7.5 (2.0-21.0)
BAI	7.0 (4.0-20.0)

Conclusion: The data of the present study have established that higher depression and anxiety scores were associated with poor ovarian reserve as well as higher BMI and longer duration of infertility, suggesting that psychological support is needed for this group of women.

Keywords: Depression, anxiety, ovarian reserve, infertility

[OP-139]

Assessment of semen quality in patients with androgenetic alopecia in an infertility clinic

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Background: Androgenetic alopecia (AGA) is a common cause of hair loss in men. It is associated with the risk of cardiovascular disease and metabolic syndrome. Additionally, it is suggested that premature AGA could be considered equivalent to that of polycystic ovary syndrome in women.

Objective: The aim of this study was to examine the relation between AGA and the quality of semen.

Material and Methods: The semen specimens were collected from 203 young adult men included in the study. AGA was classified according to the Hamilton baldness scale, modified by Norwood. All participants were classified into two categories: normal to mild AGA (equivalent to Norwood types IeII) as Group I and moderate to severe AGA (equivalent to Norwood types IIIeVII) as Group II to assess the difference in the quality of sperms between the two groups.

Results: There were no statistically significant differences in the men's age and body mass index scores among the groups. For both Groups I and II, the history of smoking and varicocele was not statistically different (p ¼ 0.62 and p ¼ 0.11, respectively). All parameters of sperm including volume, density, motility, and morphology were significantly lower in participants with moderate to severe AGA than those with normal to mild AGA ($p < 0.01$, $p < 0.01$, $p < 0.01$, and $p < 0.01$, respectively).

Conclusion: This study showed that young adult men with moderate to severe AGA have poor quality of semen compared with those who have normal to mild AGA.

Keywords: Androgenetic alopecia, male infertility, semen, sperm parameters

Table 1. Sperm parameters of the subjects and controls

	Group 1 mean±s.d.	Group 1 min.-max.	Group 2 mean±s.d.	Group 2 min.-max.	p
Semen volume (ml)	2.8±1.2	0.5-7.5	2.3±1.5	0.0-8.0	0.002
Sperm count (x10^6/ml)	59.1±62.3	0-470	36.5±56.8	0-275	0.000
Rapid progressively motile sperm (%)	40.5±16.6	0-81	23.2±19.3	0-67	0.000
Slow progressively motile sperm (%)	18.5±11.4	0-57	12.5±10.4	0-40	0.000
Morfologically normal sperm (%)	8.4±6.7	0-54	4.1±4.2	0-21	0.000

[OP-142]

Comparison of pregnancy rates between patients with and without local endometrial scratching before intrauterine insemination

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Objective: In this study, our aim was to determine the implantation success of local endometrial injury on the patients who had intauterin insemination following ovulation induction with gonodotropins as infertility treatment.

Material and Methods: The study was included 80 patients who refered Gynaecology and Obstetrics Clinic of Ataturk University Hospital because of infertility; between June 2013 and December 2013. The study was programmed as prospectivly, randomised and controlled. All the patients were well informed as verbal and inscribed. The patients who were discordant to the criterions determined at the begining of the study were excluded. The patients in all groups who had not any patologycal problems determined with ultrasongraphy (USG) on the third day of menstruel cycle, had started to ovulation induction with gonodotropins (gonal-F 900 pen 75IU subcutan). Women in the intervention group underwent local endometrial injury (scratch) in midluteal phase (day 21-25 of cycle) of the cycle preceding ovarian stimulation. The scratch was performed by the same investigator, with novack curette, to the posterior side of endometrial cavitiy under sterile conditions. When the dominant follicle (18mm and above) arised after ovulation induction with gonadotropins, HCG (ovitrelle 1*1 subcutan) was administered all of the patients in two groups and ovulation was performed. 36 hours after the ovulation, intrauterine insemination was performed to the patients by the same investigator. The patients who had not underwent intrauterine insemination or whose cycle were canceled because of any reason, were excluded

from the study. The patients were evaluated about pregnancy with B-HCG levels and USG

when their menstruation was delayed. In the 5-7. weeks of pregnancy, transvaginal ultrasound was used again to designate fetal heartbeat, for the determination of clinical pregnancy.

Results: In our study, 80 different patients undergoing intrauterine insemination were included. They divided in to two groups; 40 women in intervention and 40 women in control group. In the intervention group, 15 pregnancys (37.5%) and 11 clinical pregnancys (27.5%); in the control group 8 pregnancys (20%) and 5 clinical pregnancys (12.5%) were obtained from every 40 patients in two groups. The pregnancy and the clinical pregnancy rates were increased in the intervention group, but no statistically significant difference was found between the intervention and control groups (p=0.084 for pregnancy rates and p=0.094 for clinical pregnancy rates).

No significant difference in patient age (p=0.839); primer or seconder infertility prossesion (p=0.431); mean duration of infertility (p=0.376); menstrual invention (p=0.626); the medical treatments performed before (p=0.875); the number of menstrual cycles which patients underwent medical treatment (p=0.447); mean total progressive motil sperm count (p=0.153) was found between the two groups.

Conclusion: Local endometrial injury (scratch) performing in the cycle preceding ovulation induction to the patients who has infertility diagnosis and intrauterine insemination endication, increased pregnancy and clinical pregnancy rates; but this increase was not statistical significant. However, more randomised and controlled, prospective studies including too many patients are required before iatrogenic induction of local endometrial injury can be warranted in routine clinical practice.

Keywords: Infertility, insemination

[OP-143]

Evaluation of endometrial receptivity by measuring HOXA-10, HOXA-11, and LIF expression in patients with polycystic ovary syndrome

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Objective: Polycystic ovary syndrome (PCOS) could lead to a decrease in the endometrial HOXA-10 and HOXA 11 expressions HOXA 10 and HOXA 11 are proteinous products of homeobox gene group and play an important role during implantation. The aim of this study was to evaluate endometrial receptivity by measuring HOXA 10, HOXA 11, and LIF gene expressions in women who had polycystic ovary syndrome.

Material and Methods: A total 53 women were included into this prospective randomized study. The patients were allocated to two groups: In group 1 (PCOS group), endometrial biopsy was taken from 33 patients. In group 2 (control group), endometrial biopsy was taken from 20 patients. All endometrial biopsies were taken during proliferative phase by using pipelle. HOXA-10, HOXA 11, and LIF expressions were measured in the endometrial sampling material. Demographic data of the patients such as age, obstetric and gynecologic history, medical conditions, medications, surgical history, last menstrual period were recorded.

Results: Mean age of the patients for PCOS and control groups were 31.27 and 38.17, respectively. There was no difference between the two groups in relation with gravida and parity. HOXA 10 and HOXA 11 levels were significantly lower in group 1 than group 2 ($p<0.05$). LIF levels were found to be significantly lower in group 1 than group 2 ($p<0.05$).

Conclusion: Our results shown that, PCOS might lead to a decrease in implantation rate by diminishing HOXA 10, HOXA 11, and LIF gene expressions.

Keywords: PCOS, infertility, HOXA 10, HOXA 11, and LIF

[OP-144]

The role of premature ovarian failure awareness in female sexual functions and distress

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Objective: Women with premature ovarian failure (POF) had higher frequency of sexual dysfunction than women of the same age with normal gonadal function. The diagnosis of POF is traumatic to young women, with loss of gonadal functions having been associated with distress and anxiety. There are doubts if manifestations are due to physical or psychosocial changes. To evaluate the sexual function of women with POF and investigate whether there is a relationship between androgen levels and sexual functioning at the time of diagnosis when women are unaware of the disease.

Material and Methods: In this cross sectional study, we evaluated SF through the "Female Sexual Function Index" (FSFI) and sexual distress with "Female Sexual Distress Scale- Revised (FSDS-R), a comparison between the POF and age matched controls using the Mann–Whitney test. Serum hormone measurements included estradiol, total testosterone, free testosterone, androstenedione, dehydroepiandrosterone, and dehydroepiandrosterone sulfate (DHEAS). Correlation analysis between androgen levels and FSFI domain scores were performed.

Main outcomes measures: FSFI and FSDS-R.

Results: No significant differences between the two groups were found in the total score and domains of FSFI. The mean FSDS-R score was 15.3 (0-40) for the women in the POF group and 10.3 (0-33) for the women in the control group ($P = 0.06$). Women with POF had significantly lower levels androstendione and DHEAS levels than the control women. Desire domain weakly correlated with free testosterone levels in women with POF ($r=0.34$, $p<0.05$). Andtrosendione,

Table 1. Comparison between the different domains of sexual function and distress for women with premature ovarian failure and women with normal gonadal function using the Female Sexual Distress Score –Revised and Female Sexual Function Index

	POF group			Control group			p value
	Mean	SD	Median	Mean	SD	Median	
FSDS-R	15.3	12.4	13	10.3	10.3	6	0.06
Desire	3.3	1.1	3.6	3.7	1.1	3.6	0.1
Arousal	3.7	1.1	3.9	3.9	1.2	3.9	0.3
Lubrication	4.1	0.9	4.2	4.2	1.3	4.5	0.3
Orgasm	4.1	1.2	4.2	4.3	1.3	4.4	0.4
Satisfaction	4.0	1.5	4.8	4.1	1.8	5.2	0.07
Pain	4.3	1.3	4.0	4.7	1.5	4.4	0.6
Total FSFI	23.6	5.2	24.9	24.8	6.7	25.2	0.2

POF: premature ovarian failure; SD: standard deviation

Table 2. Androgen parameters of women with POF and control women

	POF		Control		p value
	Mean±SEM	Median	Mean±SEM	Median	
Testesterone* ng/ml	0.33±0.02	0.32	0.29±0.02	0.26	0.2
Free testosterone# nmol/l	1.22±0.13	1.35	1.50±0.17	1.43	0.4
FAI#	2.90±0.44	2.07	2.18±0.27	1.79	0.2
DHEA* ug/dl	557.02±68.70	472	443.8±30.89	383	0.4
DHEAS* ug/dl	170.65±10.41	170.60	218.45±12.90	212.80	0.03
Androstendione# ng/ml	0.54±0.05	0.59	4.45±2.59	0.69	0.03
SHBG# nmol/l	48.7±4.65	48.27	68.84±7.03	61.48	0.06

SHBG: sex hormone-binding globulin; FAI: free androgen index, SEM: standart error mean; DHEA: dehydroepiandrosterone; DHEAS: dehydroepiandrosterone sulfate; POF: Premature ovarian failure. *student t test; #Mann Whitney U test

testosterone, dehydroepiandrosterone and DHEAS were not correlated with FSDS-R, FSFI scores and domains

Conclusion: We failed to show a significant difference in sexual functions measured by FSFI and sexual distress between women with POF and normal gonadal function. Although women with POF had lower DHEAS and antrostendione levels, we did not show significant correlation with various aspects of sexual functioning and distress.

Keywords: Premature ovarian failure, female sexual dysfunction, androgens, female sexual function index, female sexual distress scale

[OP-145]

Non invasive prediction of implantation window in controlled hyperstimulation cycles:can the time from the menstrual day at embryo transfer to expected menstrual cycle give a clue ?"

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Objective: The aim of this study was to assess whether the time from the menstrual day at embryo transfer to expected menstrual cycle (TETEMC) is associated with the implantation in women with regular cycles or not.

Material and Methods: Forty women with successful implantation and forty women without implantation with regular cycles were randomly selected from prospectively collected database of ART clinic of Zeynep Kamil Women And Children's Health Training And Research Hospital. TETEMC was calculated for each case to assess relationship with the successful implantation.

Results: Comparison of groups revealed significant differences with regard to TETEMC and the menstrual period ($p<0.05$). In ROC analyses both the TETEMC (AUC=0.824, $p<0.001$) and the menstrual period (AUC=0.797, $p<0.001$) were significant predictors for clinical pregnancy. Cut off value for the menstrual period was found to be 27.5 days with 82.6% sensitivity and 65% specificity. Cut off value for TETEMC was 11.5 days with 75% sensitivity and 63.2% specificity.

Conclusion: Longer menstrual cycle and the TETEMC seem to be associated with the implantation failure.

Keywords: Controlled hyperstimulation, endometrial receptivity, implantation window

[OP-146]

Seasonal variation of human sperm cells among 4422 semen samples: A retrospective study in Turkey

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Objective: We aimed to investigate the possible presence of a seasonal pattern in three parameters of semen analysis; sperm concentration, morphology and motility measured at the time of both ejaculation and sperm production (spermatogenesis) in men with normal and oligozoospermic sperm parameters.

Material and Methods: This retrospective study includes a consecutive series of 4422 semen samples that were collected from patients as a part of the basic evaluation of the infertile couples attending the Reproductive Endocrine Outpatient Clinic of a tertiary women's hospital in Ankara, Turkey, between January 1, 2012 and December 31, 2013 were retrieved.

The samples were classified according to sperm concentration: >= 15 x106/mL as normozoospermic samples and 4 -14.99 x106/mL as oligozoospermic samples and seasonal analysis of the semen samples were done separetely.

Results: When the normozoospermic samples were analysed according to the season of semen production day (Table 1), there

Table 1. Comparison between the different domains of sexual function and distress for women with premature ovarian failure and women with normal gonadal function using the Female Sexual Distress Score –Revised and Female Sexual Function Index

Sperm parameters	Spring (n=159)	Summer (n=133)	Fall (n=187)	Winter (n=208)	P*
Volume (ml)	2.62±1.03	2.53±1.06	2.80±1.63	2.87±1.04	0.004
Concentration (M/ml)	10.80±3.04	10.41±2.91	10.13±2.94	10.62±3.01	0.134
Motility, total (%)	50.59±14.29	49.98±16.09	48.15±21.02	47.67±15.79	0.374
Motility, fast (%)	30.14±16.67	22.26±19.43	13.08±18.49	24.59±16.62	<0.001
Motility, slow (%)	20.45±12.51	27.72±16.27	35.07±21.03	23.08±14.59	<0.001
Morphology, (%)	9.14±7.02	6.86±6.78	5.06±5.99	7.63±6.02	<0.001

Table 2. Seasonal variations in Normozoospermic sperm samples by the day of semen production

Sperm parameters	Spring (n=930)	Summer (n=803)	Fall (n=1003)	Winter (n=999)	P*
Volume (ml)	2.66±1.08	2.78±1.23	2.87±1.54	3.02±1.07	<0.001
Concentration (M/ml)	2.66±1.08	51.06±27.46	50.32±28.66	51.52±28.95	0.442
Motility, total (%)	60.23±19.16	59.56±20.26	60.65±20.28	58.54±19.29	0.026
Motility, fast (%)	48.05±18.29	33.36±26.41	24.65±26.03	43.07±19.70	<0.001
Motility, slow (%)	12.17±5.93	26.20±23.97	36.01±25.71	15.47±11.79	<0.001
Morphology, (%)	15.55±9.07	11.62±9.24	8.94±7.73	13.45±8.20	<0.001

was no seasonal effect on the sperm concentration. In the analysis of the data, a gradual and consistent decrease in the rate of sperm with fast forward motility was observed from spring to fall. The spring produced sperm samples demonstrated an avarage ± SD fast motility of 48.05±18.29% whereas the fall produced samples presented a mean value of 24.65±20.03% (p=0.001), with a recovery of fast sperm motility to 43.07±19.70 % observed in the winter samples. The percentage of sperms with normal morphology was found to be statistically significantly higher in the spring samples with a value of 15.55±9.07 compared with summer samples (8.94±7.73, p=0.001). Oligozoospermic 687 semen specimens were also analysed according to the season of the semen production day, the mean age for the oligozoospermic patients was 32.11±6.22 years (Table 2). Total motility was not affected by seasonal variations and the incidence of sperms with fast motility was highest during the sperms produced in spring and winter, (30.14±16.67% and 24.59±16.62%, respectively) and lowest during the fall: 13.08±18.49% (p=0.001). The percentage of sperms with slow motility showed similar trends in both oligo and normozoospermic groups as slow motile sperms reached peak values during the fall, ie, 35.07±21.03 and 36.01±25.71% vs spring values of 20.45±12.51% and 12.17±5.93% (p=0.001) respectively. Similarly, the percentage of normal morphology according to Kruger criteria results reached a peak value of 9.14±7.02 during the spring, dropped to 5.06±5.99 (p=0.001) during fall months and recovered to 7.63±6.02 during the winter.

Conclusion: We found seasonal variation in sperm motility and percent sperm with normal morphology. Both normozoospermic and oligozoospermic semen samples had better sperm parameters in spring and winter. The circannual variation of semen parameters may be important in diagnostic and treatment desicions.

Keywords: Infertility, seasonal sperm pattern, sperm motility

[OP-147]

Can assisted reproductive therapy indications be influential on different fetal genders? Data from a tertiary care institution

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Objective: To investigate the differential effects of various ART (assisted reproductive techniques) indications on fetal gender.

Material and Methods: Eight hundred and eighteen patients who attended to the Assisted Reproduction Clinics of Zekai Tahir Burak Women's Healthcare Training and Research Hospital between January 2013 and January 2015 were included in this study. Cause of infertility, age, basal Follicle stimulating hormone (FSH) level, basal estradiol level, endometrium thickness on the day of human Chorionic Gonadotropin (hCG) administration, number of retrieved oocytes, fertilization ratio and clinical pregnancy outcome of the every patients were evaluated retrospectively.

Results: All of 818 patients who underwent ART procedures were divided into 4 groups with regard to ART indications. Ages, basal FSH levels, number of retrieved oocytes, fertilization rates and clinical pregnancy rates were significantly different among groups (Table 1). As a result of 228 live births, there were 118 (51.7%) female and 110 (48.3%) male babies. The ratios of neonatal genders were comparable among four groups (p=0.853) (Table 2).

Conclusion: Because our work is a result of a single center experience and all patients were evaluated by the same team and laboratory, the results provide more homogeneous aspects and inferences rather than a multi-center study. Genders of the offspring were determined after birth, and the gender of the conceptus who underwent spon-

taneous abortion could not have been determined, these represent limitations of our study.

Keywords: ART, gender, infertility, live birth

Table 1. Clinical and laboratory parameters of the patients who had different causes of infertility

Characteristics	Male factor (n=403)	Tubal factor (n=16)	Unexplained (n=340)	Poor responder (n=59)	p value
Age (years)	28.65±4.56	27.88±3.14	30.95±4.37	33.54±5.03	<0.001 [a, b, c, d]
D3 FSH (mIU/mL)	6.57±1.86	6.71±1.11	6.37±2.06	8.11±2.58	<0.001 [c, d]
D3 Estradiol (pg/mL)	48.85±21.23	36.82±12.39	49.97±21.82	51.89±23.07	0.081
Endometrium thickness on the day of hCG administration (mm)	10.26±2.0	8.82±1.55	9.98±1.93	9.70±2.11	0.005 [e]
Retrieved Oocyte Number	10.28±4.89	12±5.86	10.35±5.60	6.08±3.94	<0.001 [a, c, d]
Number of Transferred Embryos [Median (Min.-Max.)]	1 (1-2)	1 (1-2)	1 (1-2)	1 (1-2)	0.001 [b]
Clinical pregnancy	164 (40.7%)	7 (43.8%)	121 (35.6%)	12 (20.3%)	0.019
Live birth	128 (31.8%)	6 (37.5%)	87 (25.6%)	7 (11.9%)	0.007

[a]The difference between the groups of tubal factor and poor responder is significant. [b]The difference between the groups of male factor and unexplained infertility is significant. [c]The difference between the groups of male factor and poor responder is significant. [d]The difference between the groups of unexplained infertility and poor responder is significant. [e]The difference between the groups of male factor and tubal factor is significant.

Table 2. The distribution of neonatal gender according to the causes of infertility

Gender of the neonate	Male factor (n=128)	Tubal factor (n=6)	Unexplained (n=87)	Poor responder (n=7)	p value
Female	65 (50.8)	4 (66.7)	45 (51.7)	3 (42.9)	0.853
Male	63 (49.2)	2 (33.3)	42 (48.3)	4 (57.1)	

[OP-148]

Infertility Associated with the Familial Mediterranean Fever

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Familial Mediterranean Fever (FMF) is an autosomal recessive, systemic, autoinflammatory disease that affects the serous membrane (peritoneum, pleura, pericardium). It is common among Mediterranean populations (Jews, Arabs, Turks and Armenians). FMF is characterized by recurrent fever and inflammation of serous membranes, leading to abdominal pain, joint pain and chestpain. The most important complication of FMF is amyloidosis, which eventually leads to kidney failure. Sympoms of the disease usually occur during the first decade of life in more than 80% of patients. MEFV gene, responsible for the disease, located on chromosome 16P (13.3) codes synthesis of a protein called pyrin. M680I is common among Armenians and Turks and is associated with more severe form of the relapsing fever in early childhood which may be the only presentation of familial Mediterranean fever. It mainly presents in patients of Mediterranean descent as recurrent, self-limiting episodes of aseptic peritonitis accompanied by fever that last for 24-72 hours. Colchicine is the “gold-standard” medication and it prevents FMF attacks and systemic amyloid deposition. And we commonly forget, it is a cause of infertility both man and woman. We present the case of a 28-year-old FMF patient woman, gravida 0, parity 0 infertile female patients who was admitted the our department with desire of pregnancy. She said, she admitted to an other hospital for this complaint and as a result of her test performed reported, she has an ‘uterine septatus+tubal occlusion to right side’, previously. She knows that own disease about 13 years and she does not use Colchicine regularly. She didn’t have any external physical examination findings related to FMF. This marriage is her husband’s second and he has one child from previous marriage and his spermiogram was normally. Our ultrasonographic assessment was shown us, she didn’t have any uterus and bilateral ovarian pathologic evidence and both size was normally, endometrial cavity was regular and we didn’t monitorized any intrauterin septum. We performed Saline Infusion Sonography (SIS) in examination room, we watched the fundus-seated polipoid mass (11 mm*7mm). We couldn’t achieve her prior histerosalpingography (HSG) results and films, and so, after this situation HSG was taken by us again, and it showed us, the right fallopian tube is completely occluded. After these findings we planned the Diagnostic/ Operative Laparoscopy and Hysterescopy (+chromopertubation). We have seen that the common peritoneal defects and adhesions, right fallopian tube was severely stuck to the peritoneum. And then we started to adhesiolysis, results of operations, we have seen transition of methylene blue from both tubal ostia. We continued processing with hysteroscopy and we’ve excised polyps (11*7mm) in the fundus. And in the meantime, we have not seen any uterine shape anomaly. In this case, we would like to remind the FMF, among the causes of can not be explained women infertility. Peritoneal defects and adhesions which is caused by FMF, can be seen as a simple oclusion on the HSG, but in this case it should not be forgotten that there may be extensive adhesions and should not be avoided from resorting to laparoscopy.

Keywords: Familial Mediterranean Fever, intertility, adhesion and peritoneal defects.

[OP-149]

Predicting value of anti-mullerian hormone in response to clomiphene citrate used for ovulation induction at women diagnosed with unexplained infertility

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Objective: The Objective of this study was to determine the predicting value of AMH levels in response to clomiphene citrate used for ovulation
induction at women diagnosed with unexplained infertility and accepted as normoresponder according to FSH levels.

Material and Methods: This study was planned retrospectively. The study group consisted of primary infertile 100 patients between ages of 20-35, had regular menstruation, FSH levels <10 IU/mL, normal Hysterosalpingography, no endocrine disorders and applied to the infertility outpatient clinic at Etlik Zübeyde Hanım Women's Health Training and Research Hospital between January-December 2014, to whom ovulation induction was applied with 100 mg (50 mg*2) clomiphene citrate on the 3rd day of menstruation for 5 days, after examination, and diagnosed with unexplained infertility. Patients were divided into two groups as consecutive 50 responders to clomiphene citrate (Group 1) and consecutive 50 non-responders (Group 2). Difference between the AMH levels of two groups, and predicting value of AMH levels in response to clomiphene citrate was investigated. Education Planning Board approval was obtained. The results were evaluated by SPSS Version 17 program with Descriptive Statistics, Student's T test, Mann Whitney U Test, Pearson Correlation Analysis, ANOVA Test, Bonferroni Correction and Receiver-Operating Characteristic (ROC) Curve Analysis. $p<0.05$ value was accepted as statistically significant.

Results: The average age of all patients was 27.1±4.3 (years), average body mass index (BMI) was 24.6±2.6, average FSH value was 6.5±1.3(IU / L) and average AMH value was 2.62±0.64 (ng/ml). Average
age, BMI, LH, prolactin and TSH levels were similar among the groups ($p>0.05$). AMH and AFC values were significantly higher in Group 1 (respectively $p=0.001$, $p=0.001$). FSH and AFC values were negatively ($r=-0.339$, $p=0.001$), AFC and AMH values were positively correlated with each other as statistically significantly ($r=-0713$, $p=0.001$). AFC and AMH levels were found to be significant in predicting response to clomiphene citrate. The AUC of the AMH level based on ROC curve was significantly higher than AUC of AFC levels, and AMH levels were more significant than AFC levels (Figure 1). We determined 2.78 (ng/ml) as the cut-off value (sensitivity 74%, specificity 86%) in predicting response to clomiphene citrate in patients with unexplained infertility (Table 1), and we found AMH was a more valuable marker than AFC (AUC was determined 0.862 and 0.792 for AMH and AFC, respectively).

Conclusion: AMH was found as a more valuable marker than AFC (AUC was determined 0.862 and 0.792 for AMH and AFC) in women with unexplained inferitility. AMH levels may have an effect in success of the cure, although there is no infertility etiology with all current methods in unexplained infertility. In light of the results we have obtained in our study, poor cycles can be minimized by evaluating in which patient group ovulation induction with clomiphene citrate would be successful. However; prospective randomize studies with more number of patients are needed to support of our study results.

Keywords: Anti Mullerian hormone, clomiphene citrate, unexplained infertility

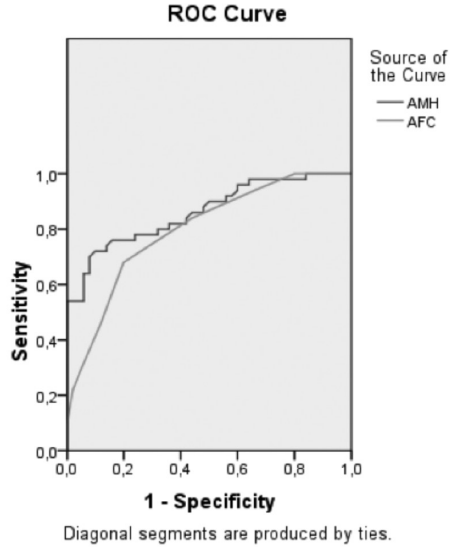

Figure 1 ROC curve of AMH and AFC values in terms of response to clomiphene citrate

Table 1. Sensitivity and Specificity rates for AMH values in predicting response to clomiphene citrate

AMH value (ng/ml)	Sensitivity	Specificity
2.72	0.76	0.80
2.75	0.76	0.84
2.78	0.74	0.86
2.80	0.72	0.86
2.82	0.72	0.88

[OP-150]

Does obesity really have any effect on ovarian reserve?

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Objective: In the accumulated literature, conflicting results from studies examining the relationship between obesity and ovarian reserve have been reported, as yet. Whereas various studies have demonstrated a significant reverse correlation, others have reported no relationship between ovarian reserve markers and obesity. We investigated whether obesity would adversely affect serum concentrations of ovarian reserve
markers in women with different ovarian reserve status.

Material and Methods: A total of 402 infertile women who were attending The Reproductive Endocrinology Department at Hitit University Hospital between February and December 2015 were included in this prospective cross-sectional study. They were divided into three groups according to body mass index (BMI) (<25 kg/m^2- nonobese, n=198, 25.0-29.9 kg/m^2- overweigth, n=126 and >=30 kg/m^2- obese group, n=78). They were also divided into two groups according to waist circumference (WC) (<80cm- nonobese, n=103 and >= 80 cm- obese groups, n=299). Additionally, all participants were categorized into three types of ovarian reserve patterns; normal ovarian group (n=146) included women with adequate reserve pattern and < 35 years of age, high ovarian group (n=112) included women with high reserve pattern and poor ovarian group (n=144) included women with diminished reserve pattern and/or >= 35 years of age. Serum antimullerian hormone (AMH), estradiol (E2) and follicle stimulating hormone (FSH) levels were assayed and also compared in all ovarian reserve and obesity groups.

Results: The median age of normal reserve group was 29 years (18-34), those of high reserve group was 27.5 years (18-34) and those of poor reserve group was 36 years (20-45) (p<0.001). There was no significant
differences of BMI and WC between three ovarian reserve groups (p=0.813 and p=0.065 respectively). There were statistically significant differences between all ovarian reserve groups at the aspect of AMH, E2, FSH (p <0.001). Comparisons of ovarian reserve parameters (AMH, FSH and E2) and obesity parameters (BMI and WC) revealed that there was no statistically difference in women with normal, high and poor ovarian reserve patterns.

Conclusion: We observed that the ovarian reserve parameters do not seem to be affected by increased BMI and WC. Because the devoid of relationship between obesity and AMH exists, AMH might be considered as a reliable marker of ovarian reserve.

Keywords: Ovarian reserve; antimullerian hormone; amh; obesity; body mass index; waist circumference

[OP-151]

The effect of vitamin D on ovarian reserve markers

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Objective: We aimed to evaluate the hypothesis in which serum 25-hydroxycholecalciferol (25(OH)D) levels are correlated with ovarian
reserve markers.

Material and Methods: This was a prospective cross-sectional study between February and December 2015 at Hitit University Hospital in Corum, Turkey. A total of 170 infertile participants met the inclusion criteria for the study. Blood samples of the participants were obtained for analyses of estradiol (E2), follicle stimulating hormone (FSH), total testesterone (TT), 17-hydroxy-progesterone (17(OH)P), dehydroepiandrosterone sulfate (DHEAS), antimullerian hormone (AMH) and 25(OH)D in the early follicular phase on days 2 to 4. Comparisons and correlation analyses of data were performed.

Results: The mean age of the participants was 30.2 years (range 18-42) and the mean BMI was 26.2 kg/m^2 (range 18.7-43.3). 53% of participant women were overweight or obese according to BMI and 80.6% of participant women had abdominal obesity according to WC. The means of 25(OH)D and AMH were 8.8 ng/mL and 4.3 ng/dL respectively.

The relationship between serum level of 25(OH)D and E2, FSH, TT, 17(OH)P and DHEAS was analyzed. No correlation between 25(OH) D and AMH was documented (r=-0.033, p=0.666).

Conclusion: Most of the studies favouring the positive effect of vitamin D on AMH production and secretion used markers of ovarian reserve/function rather than pregnancy rates as fertility outcome. Taken all together, it is highly likely that serum vitamin D has no association with serum AMH levels as a reliable ovarian reserve marker.

Keywords: Vitamin D, ovarian reserve, antimullerian hormone, amh

[OP-152]

Does tenaculum use during intrauterine insemination effect pregnancy rate?

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Objective: In IVF cycles tenaculum application to the cervix just before embryo transfer has been related to lower pregnancy rates. The aim of the present study is to evaluate wheter use of a tenaculum while introducing the catheter through the cervical canal during intrauterine
insemination (IUI) effects pregnancy outcome.

Material and Methods: A total of 140 IUI cycles (CC /rFSH + IUI) done between May 2015 and February 2016 were studied. Results were evaluated in three groups according to degree of manipulation needed to introduce the catheter into the uterine cavity (Group1(n=51): IUI done easily with a soft catheter, Group 2 (n=50): IUI done with a rigid catheter, and Grup 3 (n=39): IUI done with the use of a tenaculum). Clinical and laboratory parameters and pregnancy rates of the groups were compared.

Results: Demographic characteristics and laboratory parameters of the groups were similar (Table 1). Clinical pregnancy rate in the whole group was 10% (140/14). We could not find a statistically significant difference between the clinical pregnancy rates of the groups (11.8% vs. 10.0% vs. 7.7%, p=0.812).

Conclusion: Our results indicates that using tenaculum to ease the passage of the catheter through the cervical canal during IUI might not effect clinical pregnancy rate. However, our results need to be confirmed by further studies with larger number of patients.

Keywords: Clinical pregnancy rate, tenaculum, intrauterine insemination

Table 1. Demographic and clinical parameters of the study population

	Group 1 (n=51)	Group 2 (n=50)	Group 3 (n=39)	p value
Age (years)	26.75+4.84	26.20+5.17	28.51+3.91	0.064
BMI (kg/m^2)	24.84+3.09	24.09+3.77	23.96+3.55	0.416
Clinical pregnancy (%)	6 (11.8)	5 (10.0)	3 (7.7)	0.812
Duration of infertility (years)	3.39+2.29	3.68+2.54	4.32+3.50	0.380
FSH (IU/ml)	7.04+1.89	7.22+1.46	6.64+1.45	0.312
Peak E2 (pg/dı)	398.54+154.85	338.13+115.01	537.92+375.66	0.196
Number of dominant folicules	1.59+0.63	1.38+0.53	1.36+0.48	0.090
TMSS (X10^6/mL)	53.51+27.67	55.86+30.71	56.26+32.56	0.891
Endometrial thickness (mm)	8.75+1.37	8.89+1.52	8.8+1.69	0.867

[OP-153]

A retrospective analysis of patients who underwent preimplantation genetic diagnosis due to single gene defects: Our three years experience

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Objective: In this study, we aimed to determine the treatment results of patients who underwent preimplantation genetic diagnosis (PGD) due to single gene defects.

Material and Methods: The results of 29 cycles in 22 patients with 16 different single gene defect (SGD) were included into the analysis. The results of patients were evaluated retrospectively.

Results: HLA (Human leucocyte antigen) tissue typing was performed in 10 couples who underwent PGD. One hundred and thirty embryos were obtained in 13 cycles. Twenty-two of them were healthy and 18 were genetic mutation carriers. Embryo transfer could be performed in 10 cycles and 5 pregnancies with 4 live births were obtained. In twelve couples, in whom a SGD was detected in a single partner, PGD without HLA tissue typing was performed to prevent the transmission of the SGD to their offspring. One hundred and fourteen embryos were obtained in 14 cycles. Twenty-four of them were healthy and 25 of them were genetic mutation carriers. 22 embryos were transferred in 14 cycles and 10 pregnancies with 9 live births occurred.

Table 1. Retrospective analysis of patients

	PDF for both SGD and HLA matching	PDD for only SGD
Indications	Hemophagocytic lymphohistiocytosis, the Fanconi, Beta thalassemia, leukocyte adhesion defect, Hereditary multiple exocytosis,	Infatil types of polycystic kidney, gangliosidosis, beta thalassemia, epidermolysis bullosa, sick Krabbe., Mucopolysaccharidosis type 3B, Cockayne send., Mucopolysaccharidosis Type 6, Mucopolysaccharidosis type 5, Meckel-Gruber send., Cystic Fibrosis
Patients	10	12
Cycles	13	16
Oocytes	170	158
M2 oocytes	143	141
Embryos	130	114
Healthy embryos	22	24
Genetic mutation carrier embryos	18	25
Embryos with mutation	90	65
Transferred heathy embryos with HLA matching	6	-
Transferred Genetic mutation carrier embryos with HLA matching	8	-
Transferred heathy embryos without HLA matching	-	15
Transferred Genetic mutation carrier embryos with HLA matching	-	7
Clinic pregnancy per cycle with embryo transfer	5/10	10/14
Live birth per clinic pregnancy	4/5	9/10

PGD: Preimplantation Genetic Diagnosis, SGD: Single Gene Defects, HLA. Human Leukocyte Antigen

Conclusion: PGD with in vitro fertilization allows the possibility of a healthy pregnancy for couples under the risk of transmitting SGDs to their offspring and it eliminates the risk of termination of pregnancy. With these advantages, it should be offered to couples with SGDs since it is shown to have similar pregnancy and live birth rates compared with other indications of in vitro fertilization. PGD is a life-saving procedure in some special cases.

Keywords: Preimplantation genetic diagnosis, single gene defects, HLA antigens

[OP-154]

Changing the protocol does not affect the outcome of in vitro fertilization in successive cycles

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Objective: Failure to conceive after the first cycle of in vitro fertilization (IVF), results with repeated attempts. However, choosing the best stimulation protocol in successive cycles of IVF in the same individual is hindered by the lack of information regarding outcome in successive cycles following utilization of the same or different stimulation protocols. This study was designed to investigate the outcome of in vitro fertilization in the same patient under the same and different stimulation protocols.

Material and Methods: We have examined the repeated cycles of 88 patients whose first cycle had not resulted with live birth. First group comprised of 66 patients underwent two consecutive cycles both stimulated with long agonist protocol. The second group included 22 patients whose first cycle was with long agonist protocol and their second cycle with antagonist protocol. These two groups were compared in terms of clinical pregnancy and live birth rates, M2 oocyte number, fertilization rates, embryo grade and number.

Results: The mean of the study population in terms of age was 29.3±4.6 and BMI was 25±4.2. The indications for IVF were 52.3% male factor, 42% unexplained infertility, 3.4% poor ovarian reserve and 2,2% tubal factor. The results showed that there was no statistically significant difference in total gonadotropin dose, clinical pregnancy and live birth rates, oocytes retrieved, M2 oocyte number, fertilization rates, embryo grade and number between the groups ($p>0.05$). The only statistically significant difference was in the second group in terms of duration of ovarian stimulation ($p=0.032$) and peak serum estradiol (E(2) level ($p=0.004$).

Conclusion: This study demonstrated that changing the stimulation protocol does not have a statistically significant change in IVF outcome. Individual factors are more important than mode of stimulation in repeated cycles.

Keywords: IVF, outcome, successive cycle

[OP-155]

Impact of sperm morphology and progressively motile sperm count for pregnancy outcomes in intrauterine insemination

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Objective: To investigate the value of strict sperm morphology and progressively motile sperm count on initial semen analysis to predict an ongoing

pregnancy outcome in couples treated with intrauterine insemination (IUI).

Design: Prospective, observational study.

Material and Methods: The study comprised of 201patients who underwent IUI at Zekai Tahir Burak Women's Health Care, Training and Research Hospital fertility outpatient clinic between 2014-2015. Forty seven patients underwent ovarian hyperstimulation with gonadotropins and 154 patients with clomiphene citrate. The primary outcome was clinical pregnancy per cycle. Receiver operating characteristics (ROC)curves and binary logistic regression analysis were used to determine the effectiveness of sperm morphology and progressively motile sperm count to predict clinical pregnancy in IUI cycles.

Results: The median sperm morphology was 8% (3-65%) and the median progressively motile sperm count 65.3 (48-907) in the study population. Binary logistic regression analysis showed that only sperm morphology to be an independent statistically significant predictor of clinical pregnancy per cycle (odds ratio=2.269; 95% CI, 1.116-4.613; p=0.024). In the analysis of the area under ROC curve was 0.759 (95%CI: 0.584-0.935) (p-value: 0.013) and the optimal cut-off point was 9.5% with a sensitivity of 70% and specificity of 81%.

Conclusion: Normal sperm morphology percentage higher than 9.5 increases the probability of clinical pregnancy.

Keywords: Intrauterine insemination, pregnancy outcomes, progressively motile sperm count, sperm morphology

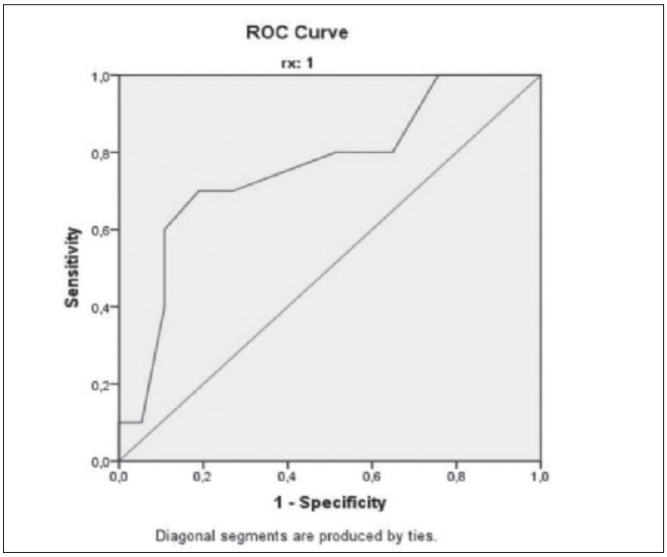

Figure 1. Receiver operating characteristics (ROC)curve of sperm morphology to predict clinical pregnancy in IUI cycles

[OP-156]

Does pituitary suppression effect live birth rate in women with hypogonadotrophic hypogonadism undergoing intra-cytoplasmic sperm injection; a multicenter cohort study

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Objective: Only a small proportion of patients that need assisted reproductive technologies (ART) are idiopathic hypo-gonadotrophic hypogonadism (HH). Due to rarity of the disorder, just a few studies have evaluated ART outcomes of those patients. Unfortunately, none of them have evaluated the optimal stimulation protocol and luteal support that should be commenced. We aimed to answer following questions; What is the success rate of intra-cytoplasmic sperm injection (ICSI) cycles in patients with idiopathic HH compared to patients with tubal factor infertility and optimal controlled ovarian stimulation (COS) protocol for that group of patient?

Material and Methods: A retrospective multicenter cohort study were performed with using database of five academic ART centers. Patient files and computer-based electronic data were scrutinized to identify women with idiopathic HH that had undergone ICSI between January-2010 and December-2014. The inclusion criteria were age less than 40 years, serum LH level<1.2 IU/ml, FSH level<2.5 IU/ml, estradiol<20 pg/mL, normal genital anatomy established by pelvic examination and endovaginal ultrasonography. The exclusion criteria were abnormal serum thyroid stimulating hormone and prolactin levels, hypothalamic-pituitary lesion documented by sella X-ray/magnetic resonance imaging. Independent from the type of COS protocol, a total of 74 women with idiopathic HH were recruited for comparison. To generate control group from each center, for every women with idiopathic HH, we retrieved two age matched (±1 year) women treated with ICSI due to tubal factor infertility in the same period of time (n=148 women). The primary outcome was live birth rate (LBR) defined as the delivery of a live born >24 weeks of gestation.

Results: The mean female age, body mass index and duration of infertility was similar between idiopathic HH group and controls(Table 1). Clinic pregnancy rate per started cycle in HH patients and controls were 46.6% and 31.7%, respectively (p=0.55). Of 74 women with HH, whereas GnRH antagonist protocol had been employed in 27 (36.5%), GnRH agonist had been given in 15 (20.3%) of them. Pituitary suppression was not employed in the remaining 32 (43.2%) patients. When compared with patients supplemented any type of GnRH analogue, women without pituitary suppression had significantly higher embryo implantation rate (24.5% vs. 52.1%, p=0.03)(Table 2). Although there was a trend in favor of no pituitary suppression subgroup, clinical pregnancy (28.6% vs. 46.9%, p=0.14) and LBR (26.2% vs. 40.6%, p=0.22) per cycle could not reach statistical significance. For the luteal phase, clinical pregnancy (55.6 vs. 42.7%, p=0.36), live birth per

Table 1. Demographic characteristics and ovarian reserve assessment of patients with idiopathic HH and controls

	Patients with HH (n=74)	Control group (n=148)	P value
Female age (years)	30.8±5.0	31.0±4.5	0.77
Body mass index (kg/m^2)	25.0±4.6	25.6±4.4	0.38
Duration of infertility (months)	60.0 (36.0–89.0)	72.0 (36.0–108.0)	0.15
Serum FSH (IU/L)	0.8 (0.2–1.9)	6.5 (5.3–7.9)	<0.001
Serum LH (IU/L)	0.3 (0.1–1.0)	5.1 (3.6–6.3)	<0.001
Serum estradiol (pg/ml)	13.0 (10.0–18.9)	42.5 (29.0–59.0)	<0.001
Antral follicle count	5.0 (2.0–10.0)	11.0 (8.0–15.0)	<0.001
Values are given as mean±SD or median (25th - 75th percentiles)			

Table 2. Comparisons between ART cycles using GnRH analogue or not in women with idiopathic HH

	With GnRH analogue (n=42)	Without GnRH analogue (n=32)	P value
Female age (years)	31.0±5.2	30.6±4.6	0.70
Ovarian stimulation length (days)	12.0±2.6	10.3±2.4	0.01
Total FSH dose (IU)	4200.0 (3112.5 - 4812.5)	3337.5 (2662.5 -4650.0)	<0.001
Peak estradiol pre-trigger (pg/ml)	1939.5 (1061.2 - 2374.2)	1548.0 (1195.0 - 4000.0)	0.17
Number of oocytes retrieved	9.0 (4.0 – 14.0)	12.0 (7.0 – 19.0)	0.07
Number of mature oocytes	7.0 (4.0 – 11.2)	8.0 (6.0 – 12.0)	0.60
Number of 2 PN embryos	5.0 (2.0 – 8.0)	4.0 (3.0 – 6.0)	0.32
Number of patients with embryo transfer	34/42 (81.0)	24/32 (75.0)	0.54
Number of embryos transferred	1.0 (1.0 – 2.0)	1.0 (0.25 – 2.0)	0.50
Rate of day 5 transfer (%)	11/34 (32.4)	11/24 (45.8)	0.30
Implantation rate (%)	24.5	52.1	0.03
Clinical pregnancy per cycle (%)	12/42 (28.6)	15/32 (46.9)	0.14
Live birth per cycle (%)	11/42 (26.2)	13/32 (40.6)	0.22
Miscarriage/clinical pregnancy (%)	1/12 (8.3)	2/15 (13.3)	0.76
Values are given as mean ± SD or (25th – 75th percentiles) unless stated otherwise.			

cycle (50.0 vs. 37.5%, p=0.37) and miscarriage rates (9.1 vs. 10.0%, p=0.64) were similar in women who were supported with estrogen and progesterone or progesterone alone.

Conclusion: Rather than supplementing any GnRH analogue, using any type of them might even have detrimental effect on pregnancy. Supporting the luteal phase with estrogen and progesterone together does not further enhance pregnancy rates when compared with progesterone alone. Those results emphasize that stimulation with only gonadotropin without any pituitary suppression and supporting the luteal phase with only progesterone achieve excellent outcome while preventing unnecessary polypharmacy and limiting treatment burden.

Keywords: idiopathic hypo-gonadotrophic hypogonadism, pituitary suppression, GnRH AG/ANTAG, controlled ovarian stimulation, luteal support

[OP-157]

Comparison of urodynamic parameters between intrafascial and extrafascial hysterectomy techniques

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Objective: The aim of this study was to compare urodynamic parameters at preoperative and postoperative periods in patients undergoing intrafascial or extrafascial abdominal hysterectomy with benign gynecologic indications.

Material and Methods: Women scheduled for total abdominal hysterectomy were randomized to intrafascial (n=24) and extrafascial (n=27) at the gynecology department. The groups were controlled for demographic variables, obstetric and gynecological history, indications for hysterectomy and preoperative hemoglobin values. All of the patients under both techniques were given a urodynamic investigation at preoperative and sixth week postoperative periods. Cystometry was perfomed in the urodynamic investigation at preoperative and postoperative periods. All of the 10 urodynamic parameters investigated in the two techniques at preoperative and postoperative periods were compared. P<0.05 was chosen to represent the statistical significance for each of the variables.

Results: A total of 51 patients enrolled in this study. The mean age of these was 48.49±4.87 years. Extrafascial hysterectomy was performed on 27 out of 51 cases and intrafascial hysterectomy was performed on the remaining 24 cases. The mean body mass index (BMI) was 30.316±5.76 kg/m2. When the urodynamic values of pre- and posthys-

terectomy periods were compared between the two techniques, no significant change could be found in maximum detrusor pressure, maximum abdominal pressure, vesical compliance, detrusor compliance, maximum vesical pressure, first sensation, normal desire to void and urge sensation ($p>0.05$). With the intrafascial technique, volume and bladder capacity significantly increased after the operation compared to the extrafascial technique ($p<0.05$). Urodynamic testing performed before the operations revealed that two patients had stress urinary incontinence and one patient had urge incontinence. No patient developed stress or urge incontinence following the operation.

Conclusion: According to the results of this study, no significant correlation could be found between exacerbation or de novo development of stress or urge incontinence and intrafascial or extrafascial postabdominal hysterectomy periods. Regarding the development of urinary incontinence, comparison of the two techniques is only possible when performed on homogenous patient groups (as in our study), but also requires an extended number of cases. In the intrafascial technique, maximum bladder capacity significantly increased following the operation, compared to the extrafascial technique. No significant relationship was found between the two groups with respect to increase of stress or urge urinary incontinence symptoms and de novo incontinence following hysterectomy.

Keywords: Hysterectomy, urodynamic, intrafascial, extrafascial, incontinence

[OP-158]

Bilateral sacrospinous fixation without hysterectomy:18-month follow-up

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Objective: The goal of surgery of pelvic organ prolapsus is to increase the quality of life, restore the anatomy and functional status, and prevent the recurrent prolapse. Apical support is the most important point for successful surgery. Abdominal sacrocolpopexy (ASC) and vaginal sacrospinous fixation (SSF) offer a long-term efficiency of 78%-100% and 73%-97%, respectively, in providing apical support. The advantage of SSF is that it does not require laparotomy and general anesthesia, the procedure is cost-effective, and early discharge is possible.

Material and Methods: In the present study, a total of 22 women with pelvic organ prolapse (POP) of stages 2-4 underwent bilateral SSF with surgical mesh (Prolen®; Ethicon, Norderstedt, Germany) interposition. In the preoperative and postoperative period, all patients were examined according to the pelvic organ prolapse quantification system (POP-Q), and Pelvic Organ Prolapse/Urinary Incontinence Sexual Questionnaire-12 (PISQ-12) forms were completed. A polypropylene suture (Prolen ®; Ethicon, Norderstedt, Germany) (no:1) was bilaterally placed on the sacrospinous ligament. The tips of the 5 x 1.5 cm polypropylene mesh (Prolen®; Ethicon, Norderstedt, Germany) were suspended over this suture. The mid-point of the mesh was attached to the mid-section of the posterior surface of the cervix with three stitches using polypropylene no:1 sutures (Prolen®; Ethicon, Norderstedt, Germany) (Figure 1).Wilcoxon Signed Ranks test, Friedman test and Repeated measures test were used for statistical analysis.

Results: The comparison of preoperative and postoperative POP-Q results at 6, 12, and 18 months revealed strong significant differences for points Aa, Ba, C, D, Ap, and Bp ($p=0.001$) (Table 1). According to the POP-Q system, the recovery of the apical point and vaginal wall is remarkable in the postoperative period. The evaluation of the total PISQ-12 scores revealed significant improvement in the symptoms of the patients compared to the preoperative scores ($p=0.001$) (Table 2).

Conclusion: Unilateral SSF is associated with the anatomical distortion of the vagina and the rectum that may alter both sexuality and bow-

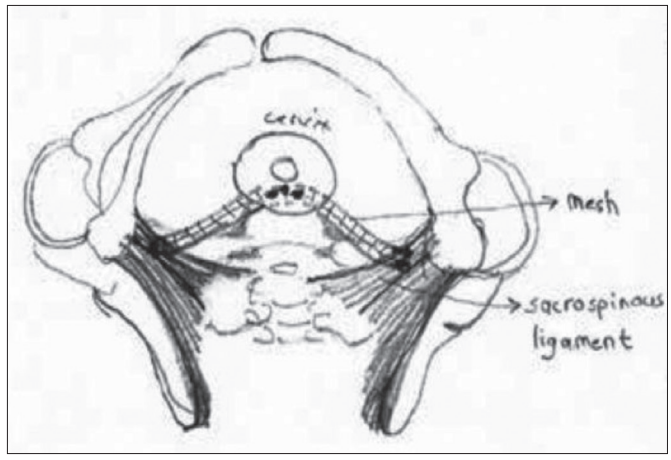

Figure 1.

Table 1. The comparison of the prolapsed points before the operation and at 6, 12, and 18 months postoperatively

n=22	"Preoperative Mean±SD"	"6 Months Mean±SD"	"12 Months Mean±SD"	"18 Months Mean±SD"	p
Aa Point	1.69±0.62	-3.68±0.43	-3.46±0.89	-3.58±0.41	0.001*
Ba Point	1.25±2.23	-3.85±0.41	-3.74±0.59	-3.85±0.39	0.001*
C Point	0.85±3.03	-7.35±0.41	-7.27±0.38	-7.26±0.36	0.001*
D Point	0.07±2.79	-8.20±0.31	-8.16±0.36	-8.13±0.37	0.001*
Ap Point	0.22±1.49	-4.10±1.09	-3.86±0.37	-3.85±0.36	0.001*
Bp Point	0.05±2.34	-4.10±0.37	-4.07±0.34	-4.07±0.33	0.001*
Friedman Test, *p<0.01					

Table 2. The comparison of the cases with respect to PISQ-12 scores in the preoperative period and at 6, 12, and 18 months postoperatively

n=20	Min–Max	Median	Mean±SD	p
PreoperativeABC	30/43	40.5	39.50±3.41	0.001*
6 MonthsAde	38/46	43.0	43.10±1.94	0.001*
12 MonthsBdf	41/46	43.0	43.55±1.57	0.001*
18 MonthsCef	41/46	43.0	42.95±1.15	0.001*

*Repeated Measures Test where p<0.01, Wilcoxon Signed Rank tests were used for the paired comparisons, and capital letters were used where p<0.01, p values were A: 0.001, B: 0.001, C: 0.001, d: 0.216, e: 0.748, f: 0.110 PISQ-12: Pelvic organ prolapse/urinary incontinence sexual questionnaire-12; SD: standard deviation

el function. Because of these reasons, studies have focused on anatomical and functional results after bilateral SSF. Magnetic resonance studies showed that measurements of the distance between the vaginal apex and bony pelvic landmarks and the ischial spines in women who underwent bilateral SSF were similar to the measurements in nulliparous women with normal support. Hence we thought that bilateral SSF keep the vaginal axis more close to original anatomic position. We did not perform hysterectomy because the uterus itself passively causes prolapsed it is vital to the maintenance of pelvic floor structure and functions. Additionally we believe that more sutures can be placed through more durable tissue in the cervix.

Keywords: Pelvic organ prolapse, surgical mesh, vaginal vault

[OP-159]

Posterior vaginal wall cyst masquerading as rectocele: A diagnostic dilemma

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Introduction: Benign cystic lesions of the vagina are relatively uncommon. Mesonephric (Gartner ' s duct) cysts, Bartholin gland cysts, Mullerian cysts and squamous inclusion cysts are the most type of vaginal cystic lesions respectively (1). This paper illustrates a rare case of large posterior vaginal wall cyst of Mullerian origin mimicking rectocele.

Case: A -35year-old multiparous woman was admitted to our gynecological clinic with a complaint of reducible non-tender mass protruding from the vagina noted for about a year. On pelvic examination, a bulging mass protruded from posterior vaginal wall (Figure 1). The mass was soft and could be compressed manually easily. The mass appeared to be a rectocele and colpography posterior was planned. After dissection of the posterior vaginal wall there was a 5 cm diameter cyst deep to the posterior vaginal wall. Cyst was dissected completely from the vaginal wall. Cysts derived from müllerian epithelium arise from patches of vaginal adenosis and are lined by tuboendometrial- or mucinous-type epithelia and metaplastic squamous epithelium (Figure 2). Follow-up and long-term recovery were uneventful.

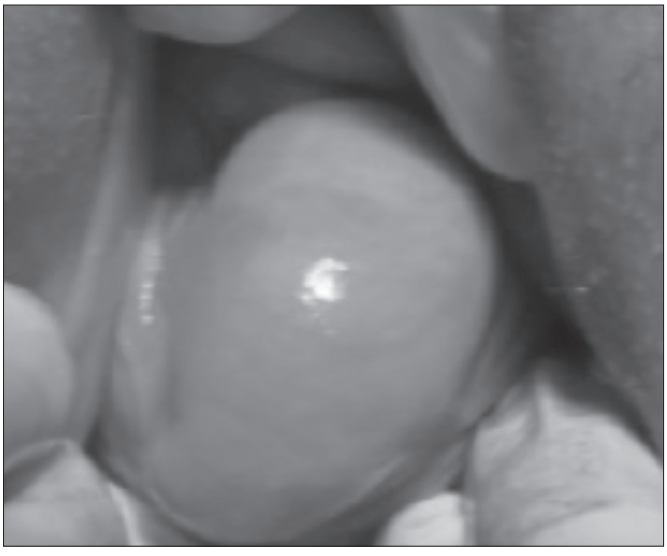

Figure 1. A bulging mass protruded from posterior vaginal wall mimicking rectocele

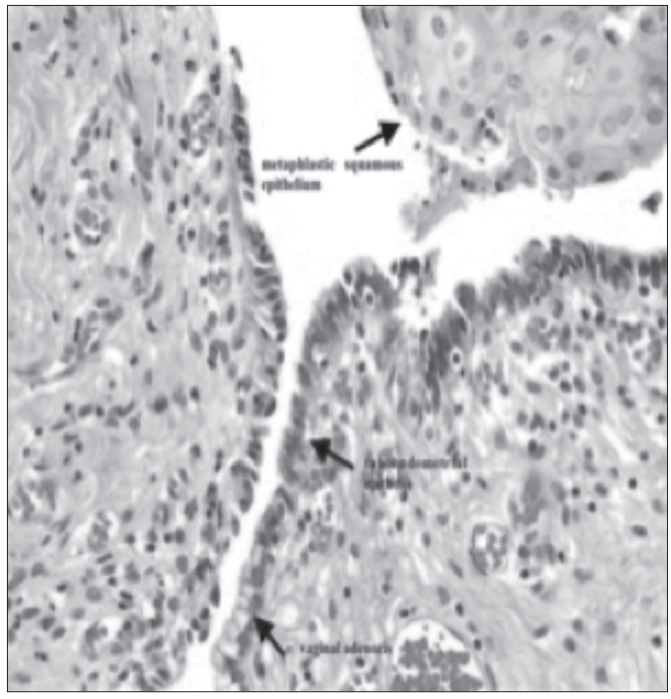

Figure 2. Pathologic finding of cyst

Discussion: Mullerian duct cysts are remnants of the embryological paramesonephric ducts (2). Usually they are single and they have been reported to be located typically anterolateral vaginal wall (3,4). Vaginal wall cysts are usually discovered incidentally on physical examination. Our case presented with complaints of something coming out of vagina for a year which was increasing in size but there were no associated urinary or bowel symptoms. There should be remembered in the differential diagnosis of large, protruding vaginal masses.

Keywords: Mullerian cyst, mimicking rectocele, vaginal wall

[OP-160]

Effects of Tans-Obturator Tape outside-in versus inside-out procedure for stres urinary incontinence on women's sexual functions and quality of life: Results of a prospective randomized study

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Objective: This study aimed to asess the effects of Trans-Obturator Tape (TOT) procedure for stress urinary incontinence (SUI) on wom-

en's quality of life, sexual function and psychosocial state. And compared the two techniques of TOT procedure; inside-out and out-side in technique.

Material and Methods: This prospective randomized study included 101 patients who underwent surgery for SUI. The patiens with urodynamically proved stres urinary incontinence were divided into two groups randomly: 59 women had outside-in TOT, 42 women had inside-out TOT procedure. Preoperative and post operative after six months scores on HADS (Hospital Anxiety and Depression Scale), SQoL-F (Sexual Quality of Life–Female), PISQ-12 (Pelvic Organ Prolapse/ Urinary Incontinence Sexual Function) were evaluated between two group.

Results: In all patients the postoperative SQoL-F and PISQ-12 scores were significantly higher than the preoperative scores ($p<=0.001$). Significant improvements were observed in emotional-behavioral, physical, partner relationships, psychosexual feelings, sexual and relationship satisfaction, self-worthlessness and sexual depression. The mean postoperative HADS scores were significantly lower than the mean preoperative HADS scores ($p<=0.001$). Preoperative and postoperative differences at emotional-behavioral and physical scores in PISQ-12 statistically higher increases in inside-out TOT procedure than the outside-in TOT procedure ($p=0.037$, $p=0.026$, respectively).

Conclusion: The outside-in TOT procedure and inside-out TOT procedure are both statistically improved the sexual quality of life, sexual functions and psychosocial state. Additionally postoperative emotional-behavoral and physical scores in PISQ-12 were significantly more increase in inside-out TOT group than outside-in TOT group.

Keywords: Incontinence, sexual function, sexual quality of life

[OP-161]

Creation of neovagina in a patient with complete uterovaginal agenesis using peritoneum of bladder, a case from Pristina, Kosovo

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Introduction: Complete vaginal agenesis is a rare congenital condition that occurs in approximately 1 in 4,000–10,000 female births which is frequently associated with Mayer-Rokitansky-Kuster-Hauser syndrome (MRKHS). MRKHS is characterized by vaginal agenesis with variable Mullerian duct abnormalities. Women who suffer from MRKH have no vagina or uterus but normal karyotype (46, XX), ovarian function, external genitalia, and secondary sex characteristics of female gender. Some patients also have other associated malformations, as renal (40%), skeletal (10%–12%), and auditory abnormalities. There is still no consensus regarding the best management option for Rokitansky syndrome. There are several methods previously used for vaginal construction. Here we aim to present a case of surgical creation of neovagina using peritoneum of posterior bladder during an official volunteer period in Pristina, Kosovo.

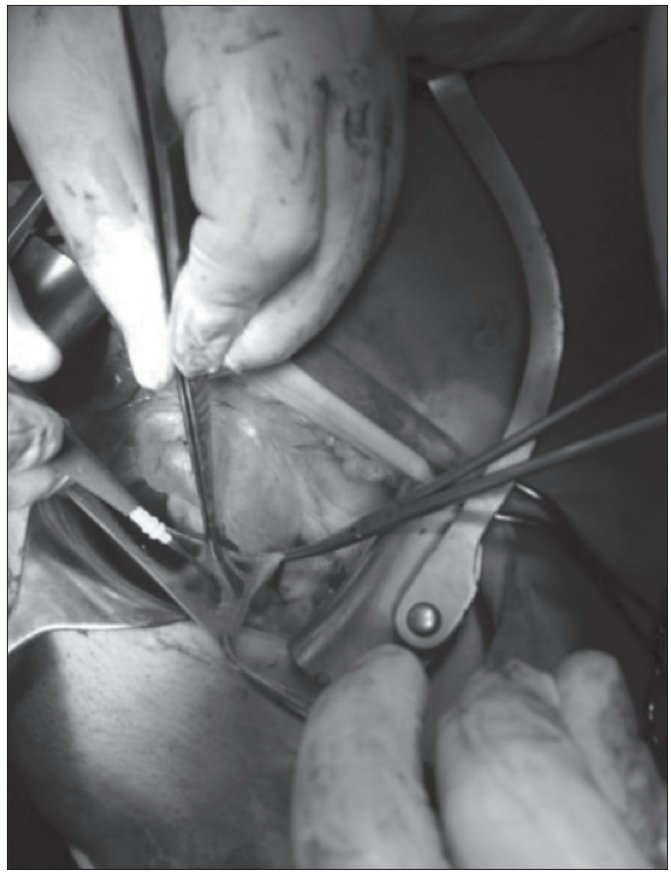

Figure 1. Dissection of the peritoneum

Case Report: A 22 years old girl at her admission to the outpatient clinic, was diagnosed with vaginal agenesis. There was complete absence of vagina without introitus as well. Further evaluation revealed also absence of the uterus and ectopic pelvic kidney. After detailed counselling with the patient and her family, vaginoplasty for creation of a neovagina was performed. With a pfannenstiel incision, pelvic organs were explored. There was complete absence of the uterus with two fallopian tubes and ovaries surrounded by a loose peritoneal overlay. Her right kidney was located at the pelvis. Dissection of the peritoneum covering the vesicorectal pouch was performed (Figure 1), and dissection progressed until subcutis in the position of the introitus. Anterior portion of the disected peritoneum from the posterior of the urinary bladder was used to form a cylindrical shaped neovaginal model of 5 cm in diameter and 10 cm length. After formation of the flap, it was converted in order to provide the smooth peritoneal surface as the inner vaginal wall. A 3-cm horizontal incision was made at the subcutaneous tissue in the position of the introitus. The peritoneal sheet was drawn out through the canal. And the newly formed vaginal intraoitus was sutured seperately with 3/0 vicryl (Figure 2). At the end of the operation the neovagina had at least 8 cm length, and 3-4 cm width. At the immediate inspection, no early signs of ischemia was noted at the flap site.

Discussion: Management of vaginal agenesis in the MRKHS is an important point of interest as the outcome affects physical and psychosocial health of the women. The aim of vaginoplasty should be

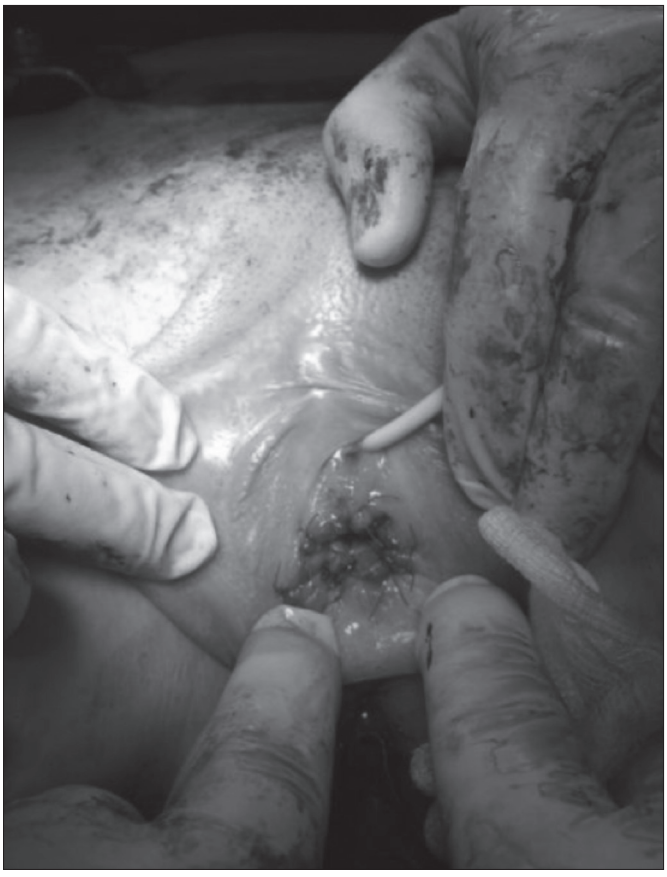

Figure 2. Vaginal intraoitus is formed and sutured seperately

the creation without excessive morbidity of a neovagina that will be satisfying in appearance, function and feeling. Peritoneum has been considered as an appropriate material to provide a suitable vaginal environment.Also this procedure is easily applicable, the early results are encouraging and has lesser potential of complications regarding bowel injury and cutaneous tissue recovery at the other procedures. In conclusion creation of neovagina using peritoneal flap is a promising and choic, however the main point of consideration is to be tailored to the individual's needs, the motivation of the patient and the experience of the surgeon.

Keywords: Vaginal agenesis, mullerian, neovagina, peritoneum

[OP-162]

The impact of concurrent pelvic organ prolapse reconstructive surgery on midurethral sling procedure outcome

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Objective: To evaluate the impact of concurrent pelvic organ prolapse (POP) reconstructive surgery on midurethral sling procedure outcome

Material and Methods: This retrospective study included 300 women who had stress urinary incontinance diagnosed by urodynamically and underwent midurethral sling procedures with or without concurrent POP reconstructive surgery at Zekai Tahir Burak Woman's Health Education and Research Hospital between May 2012 and February 2015. Patients were divided into four groups due to conducted surgery as: only Transobturator tape (TOT), TOT + POP, only Tension free vaginal tape (TVT) and TVT + POP. Preoperatively, all women were asked to complete Incontinence Impact Questionnaire-7 (IIQ-7) and Urogenital Distress Inventory (UDI-6) questionnaires in order to assess quality of life. Outcomes of surgeries for each group were

Table 1. Comparisons of groups

	Only TOT (n=42)	TOT+ POP (n=70)	P1 Value	Only TVT (n=49)	TVT+ POP (n=139)	P2 Value	P3 Value	P4 Value
IIQ7 (Preoperative)	15±4.9	14±47	0.9	15.8±3.9	14.9±4.7	0.2	0.3	0.9
IDU6 (Preoperatve)	13±3	13±3.9	0.2	12.4±4.3	12.8±3.4	0.4	0.07	0.6
IIQ7 (at the end of the 1st month)	3.9±3.1	3.1±2.2	0.1	2.9±2.6	2.8±2.7	0.8	0.1	0.5
IDU6 (at the end of the 1st month)	3.4±2.8	2.5±1.7	0.04	2.6±2.1	2.9±2.5	0.4	0.1	0.3
Cure Rates	90.5	76	0.04	92	88	0.6	0.5	0.02

Datas are shown as mean ± standard deviation. Cure rates are shown as percent. P values was calculated by Independent sample t-test and Pearson's chi square test. P1: Probability value between Only TOT and TOT+POP groups. P2: Probability value between Only TVT and TVT+POP groups. P3: Probability value between Only TOT and Only TVT groups. P4: Probability value between TOT+POP and TVT+POP groups. P<0.005 was considered statically significant.

Table 2. Lineer regression analysis of variables that might be affective on midurethral sling procedure outcome

Variables	Sayı (n/n)	Wald	Exp (B)	P	95% CI for Exp (B)
Age (60</<60)	61/239	0.2	1.2	0.6	0.4-3.3
TOT / TVT	112/188	2.9	1.8	0.08	0.9-3.7
POP (+/-)	209/91	3.0	0.4	0.08	0.2-1.1
Body Mass Index (30</<30)	148/152	0.1	0.8	0.6	0.4-1.6
Parity (n)	--	0.11	1.1	0.7	0.4-3.1
Menopausal Status (+/-)	132/168	0.5	0.7	0.4	0.3-1.6
Smoking (+/-)	49/251	0.3	1.3	0.5	0.5-3.8
Macrosomic Birth (+/-)	50/250	0.05	1.1	0.8	0.4-2.9
MUCP (40</<40)	271/29	0.5	0.6	0.4	0.2-1.9
VLPP (90</<90)	104/196	0.8	0.8	0.5	0.3-1.6

Calculated by Binary logistic regression model p<0.005 was considered statically significant.

evaluated by performing cough stress test postoperatively at the end of first month and also IIQ-7 and UDI-6 questionnaires were repeated. Presence of negative cough stress test was defined as "Cure" while positive test result was defined as "Failure". Intraoperative and postoperative complications were also noted.

Results: In Only TOT group, there were 42 women while in TOT+POP group, 70 women. On the other hand, only TVT procedure were performed for 49 women while 139 women had TVT with POP reconstruction. There were no significant differences in terms of demographics, preoperative IIQ-7, UDI-6 scores and urodynamic parameters between the groups. Postoperative UDI-6 score and postoperative cure rate were significantly higher in only TOT group as compared in TOT+POP group (Table 1). However in multiple regression analysis, woman age, parity, body mass index, menopausal status, preoperative urodynamic parameters miduretral sling types and presence of any concomitant POP reconstructive surgery were found ineffective on surgical outcomes (Table 2). No statistical significance was found between the groups in terms of complication rates, else.

Conclusion: The concurrent POP reconstructive surgery does not affect midurethral sling procedures outcomes. However, further prospective studies with more participitants are needed.

Keywords: Midurethral sling, pelvic organ prolapse, outcome

[OP-163]

Delayed vaginal and cesarean delivery in a twin birth: a case report

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Introduction: Preterm labor is the delivery that occurs between the 20th and 37th weeks of pregnancy. It occurs more in multiple pregnancies than in singleton pregnancies. In twin pregnancies, vaginal birth can be realized during the preterm labor process. We present here a case where a woman pregnant to twin babies applied to our clinic with the complaint that her labor pains started at gestational week 28 and after her first fetus was delivered by vaginal means, her second fetus was delivered through cesarean section after a follow-up period of 18 hours.

Case Report: A 27-year-old G1P0 woman pregnant for 28 weeks and 3 days presented to our clinic complaining about the onset of her labor pains. In her obstetric ultrasound examination, dichorionic and diamniotic twin fetuses were seen that were compatible with their gestational weeks and were weighing approximately 1,250 and 1,260 g. The babies were in a vertex-vertex presentation. Her vaginal examination showed 80% effacement and 7 cm dilatation. The patient was spontaneously monitored in the delivery room. An hour after the observational period, the first fetus was delivered weighing 1,260 g, with an APGAR of 8/10. The placenta of the first fetus was left inside. The cervix was observed to close after the birth of the first fetus. The cervix was measured as 33 mm in the transvaginal ultrasound examination. A decision was made to wait for the birth of the second fetus and the family was informed accordingly. A Cellestone Choronodose (Betamethasone acetate) 1 IM ampoule was administered for pulmonary maturation. After the patient was monitored for approximately 18 hours, the other delivery was realized through cesarean section. A baby girl was delivered weighing 1,280 g, with an APGAR of 8/10. A phase 1 subependymal germinal matrix bleeding developed in the first baby, but the bleeding site was seen to recover in its further follow-up without leaving any sequela. No complications developed in the second fetus. The patient was discharged at day 2 after the operation.

Conclusion: Preterm labor occurs in 5-15% of all births and is responsible for most of the neonatal morbidity and mortality. The most important modality in managing preterm labor is to gain time until the pulmonary maturation of the fetus. Preterm labor is seen more often in multiple pregnancies. The treatment approach is decided on considering the maternal and fetal status in cases of preterm labor in multiple pregnancies. Waiting is possible for the pulmonary maturation of the second fetus following the vaginal birth of the first fetus unless immediate action is inevitable. The placenta of the first fetus should not be removed as the removal of placenta may trigger birth labor for the second fetus. Corticosteroids should be administered during such waiting. In any case, the patient should be closely monitored for early and late postpartum complications such as chorioamnionitis, vaginal bleeding and uterine atonia, and by well management of these risks, a cesarean delivery should be effected without waiting for the labor.

Keywords: Delayed interval delivery, twin pregnancy

[OP-165]

A rare cause of adnexal mass: Chondrosarcoma

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Introduction: Although metastases are rarely seen in the female genital system, ovary involvements are common in the presence of pelvic metastasis. Uterine tumoral involvements occur usually when the neighboring organ tumors spread or more often in advanced stage ovarian tumors, but distant organ metastases can also be seen rarely. Metastasis to the uterus is mostly reported in breast, stomach and colon cancers. For this reason, a multidisciplinary approach is necessary in the diagnosis and treatment of a pelvic mass. Chondrosarcoma is a malign tumor developing from hyaline cartilage matrixes and chondrocytes and involving mostly the proximal femur and proximal humerus. We share here our experience with a patient who had been referred to us from an external clinic with a pelvic mass complaint and whom we diagnosed with metastatic myxoid chondrosarcoma of extragenital origin.

Case Report: A 61-year-old female patient with whom we had linguistic cooperation difficulty presented to the hospital with an abdominal pain localized at the bilateral lower quadrant. Her anamnesis involved an operation with an unspecified diagnosis she had undergone twice in 2008 and 2011 on her front thoracic wall. Her gynecological examination and transvaginal ultrasound revealed a mass approximately 76x62 mm in size with a heterogeneous appearance that was localized behind her uterus and displaced it. CA-15-3: 57.2 U/ml and CA-125: 313.4 U/ml were found in the biochemical analysis. In her Positron Emission Tomography (PET), a cystic mass with a high potential of primary malignity was seen in the posterior of her uterus, lymph nodes with a high potential of metastasis in her pararectal and

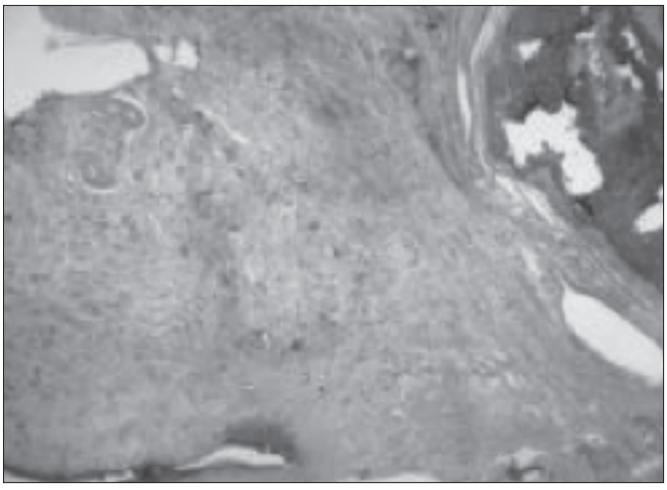

Figure 1. Revealed chondromatoz tumor infiltrating uterin cerviks wall İnfiltrating tumor at the upper right and squamous epitelium of cervix at the bottom were seen. 20* H&E

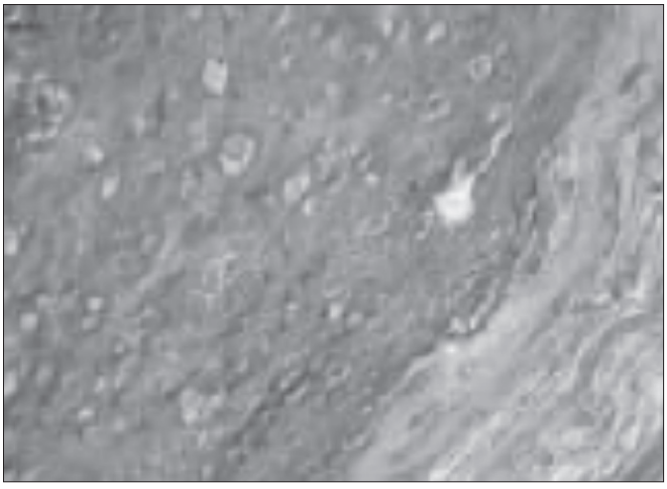

Figure 2. The tumor cells with eosinofilic nuclei were embedded in a basofilic chondromixoid stroma (arrows) 200 H*E At higher magnification it was seen that the tumor was composed of atypical cells, with eosinophilic, nuclei embedded in a chondromoxoid stroma (arrows)

paracolic regions, and sites showing increased metabolic activity in the soft tissue neighboring her right atrium. These findings suggested general malignity and resulting metastases. Our exploration for any cardiac metastasis using Cardiac Magnetic Resonance exhibited a complicated cystic lesion 4*6*8 cm in size with lobule contours, which was localized at the right cardiophrenic angle and contained multiple internal septations, and this was found significant with respect to metastasis. The patient was administered exploratory laparotomy. During exploration, a mass around 10 cm in size was seen neighboring the posterior wall of the uterus. Although the frozen section assessment of the mass confirmed presence of malignity, it did not show at first sight any signs suggesting ovarian pathology. The patient was administered pararectal tumoral mass excision, total abdominal hysterectomy, bilateral salpingoophorectomy, total omentectomy, right subhepatic tumoral implant excision and appendectomy. After normal follow-up, the pathology was assessed as myxoid chondrosarcoma. The omentum, paracolic areas and cervix were found to be infiltrated by the tumor and chemotherapy was planned for the patient after examining her for any cardiac metastasis.

Conclusion: Intervention to a pelvic mass is a difficult process that concerns many departments including gynecology, general surgery, and urology. When making an initial diagnosis, primary gynecologic, urologic, and GIS-related malignity as well as any metastasis associated with such malignity should be considered. Additionally, an intraoperative frozen section examination should always be carried out.

Keywords: Chondrosarcoma, adnexal mass

[OP-166]

A case report: Genital tuberculosis mimicing ovarian cancer

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Introduction: Genital tuberculosis is caused by the hematogenous spread of mycobacterium tuberculosis from primarily infected sides other than internal genitalia. The tubes were the most infested areas in the internal genitalia. The development of granulomas on the walls of the affected tubes and formation of adhesions between the adjacent organs were expected intra-abdominal findings of genital tuberculosis. It is a clinical entity, generally seen in young women aged between 15-25 years. Here we present our experience and a case of genital tuberculosis mimicking ovarian cancer with its clinical findings in an elderly patient.

Case Report: A 64-year-old patient was admitted to the hospital with complaint of abdominal pain localized in bilateral lower quadrants. Ultrasonographic assessment of the patient revealed a right ovarian cyst in 3x3 cm diameters concomitant with a widespread acid in the abdomen. Biochemical assessment showed increased tumor markers (CA- 15-3: 57.2 /ml and C -125: 313.4 U/mL) and positron emission tomography (PET) represented increased fludeoxyglucose (FDG) uptakes in line with the diagnosis of primary malignancy and metastasis [Increased FDG uptake in the diffuse thickened peritoneal areas (SUV max:11.1) and in the right adnexial soft pertitoneal tissue area (SUV max:9.8)]. During the diagnostic laparoscopy, diffuse adhesions have been identified and frozen section of the bilateral ovarian biopsies had revealed the presence of benign pathology rather than expected malignancy. The adhesion formation seen in the abdominal cavity thought to cause due to infection. The biopsies taken from fallopian tubes, ovaries and peritoneum all revealed caseified graulomarous inflammation together with salpingitis and peritonitis due to tuberculosis. The cytological assessment of the abdominal free fluid showed lymphocytes and mesothelial cells. Mycobacterium tuberculosis complex was proliferated from the obtained urine culture as final proof of genital tuberculosis. A classical four agent anti-tuberculosis treatment was initiated thereafter.

Conclusion: Tuberculosis salpingitis is a clinical entity, most commonly seen in young women between 15-25 years old and often causing abdominal pain and infertility. It is rarely seen in the elderly. The increased tumor markers and FDG uptakes in PET, in an elderly patient were all in line with the possible diagnosis of malignancy or metastasis. And also, it must be kept in mind a considerable amount of patients with genital tuberculosis was diagnosed during the accidental

operations performed due to diagnosis of adnexial tumor or acute appendicitis. Therefore, especially in developing countries due to high incidence of tuberculosis, patients must be evaluated considering the possibility of urogenital tuberculosis.

Keywords: Genital tuberculosis, ovarian cancer

[OP-167]

Joubert syndrome: Case series

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Joubert syndrome (JS) and related disorders (JSRD) are a group of multiple congenital anomalies syndromes in which the diagnostic hallmark is the molar tooth sign (MTS), a complex midbrain malformation visible on brain imaging. Detection of the MTS should be followed by a diagnostic protocol to assess multiorgan involvement. The incidence of JSRD range between 1/80,000 and 1/ 100,000 live births, although these values may represent an underestimate. The neurological components of JSRD include hypotonia, ataxia, intellectual disability, abnormal eye movements, and neonatal breathing problems. These may be associated with multiorgan involvement, mainly retinal dystrophy, nephronophthisis, hepatic fibrosis and polydactyly. With the exception of rare X-linked recessive cases, JSRD follow autosomal recessive inheritance and are genetically heterogeneous. Ten causative genes have been identified to date, all encoding for proteins of the primary cilium, making JSRD part of an group of diseases called "ciliopathies". Analysis of causative genes is available in few laboratories worldwide on a research basis. Differential diagnosis must consider in particular the other ciliopathies, distinct cerebellar and brainstem congenital defects and disorders with cerebro-oculo-renal manifestations. Recurrence risk is 25% in most families, although X-linked inheritance should also be considered. Optimal management requires a multidisciplinary approach, with particular attention to respiratory problems in neonates. After the first months of life, prognosis varies among JSRD subgroups, depending on the extent and severity of organ involvement.

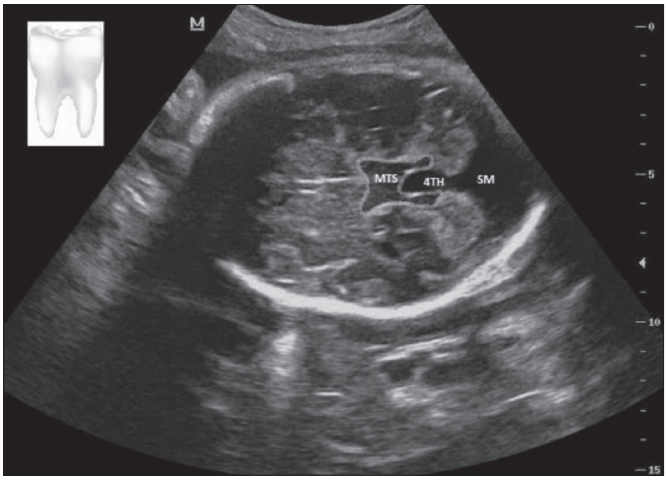

Figure 1. Intarcranial sonographic findings of Joubert Syndrome (MTS: Molar tooth sign, 4th: Fourth ventricle, SM: Sisterna Magna) Arrow indicates the Open Fourth Ventricle

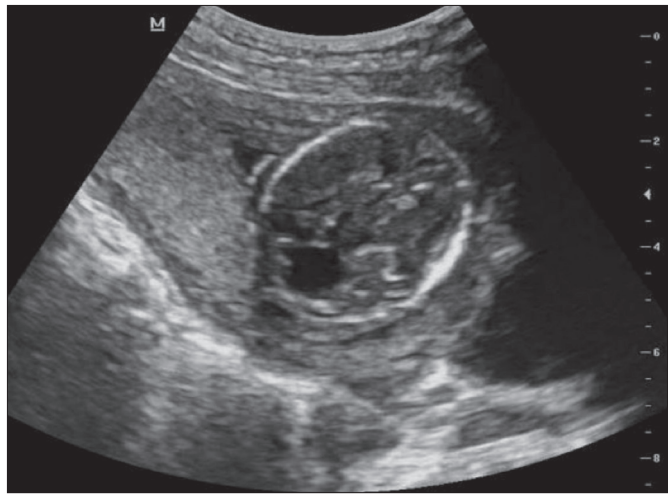

Figure 2. Agenesis of cerebellum

Keywords: Joubert Syndome, molar tooth sign, pregnancy

[OP-168]

A rare cause of urinary retantion in women: Fowler's syndrome

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Introduction: Chronic urinary retention (CUR) is a condition with non-painful bladder and chronic high post-void residual urine (1). Fowler's sydrome (FS) is type of CUR seen in young women and it was described as a unable to void in the absence of any demonstrable cause(2). Many of these women usually have a trigger such as urinary tract infection, general anesthesia, childbirth or gynecologic surgery (3). In this paper we described a patients with PCOS had become FS after transobturator tape procedure (TOT).

Case Report: A -35 year-old multiparous woman was admitted to our gynecological clinic with a complaint of stres urinary incontinance (SUI). She had a history of ovarian cystectomy five years ago. Specific evaluations of SUI such as the pad test for urine leakage, Q-tip test, and pelvic examination for pelvic organ prolapse were performed preoperatively. Preoperative urodynamic studies were performed included uroflowmetry and measurement of postvoid residual (PVR), cystometrogram, pressure-flow study and measurement of urethral closure pressure and leak point pressure. The TOT operation was performed with the patients under general anesthesia. At the end of the operation, a 16-Fr Foley catheter was indwelled and was removed the next day. After removal of urethral catheter PVR measured about 1500 ml. Foley catheter

was indwelled again. Cystourethroscopy was performed for evaluation of suspected operative urinary tract injury (eg, ureteral injury, cystotomy, intravesical placement or erosion of mesh or suture). There were were no pathology both in urethra and bladder. Urodynamic studies were performed again. There were post-operative urodynamic findings include reduced bladder sensation, large capacity bladder and detrusor underactivity. Clean intermittent catheterization (CIC) was recommended. After 8 week her urethral output increased gradually to achieve bladder residual urine of <100–150 ml, after which the CIC was stopped.

Discussion: FS first described by Professor Clare J in young women with painless urinary retantion in 1985 (4). The classical presentation is woman aged between 20–30 with an intermittent inability to void. This may happen spontaneously or may be after urinary tract infection, general anesthesia, childbirth or a gynecologic operative procedure (5,6). The aim of treatment is to try to ensure bladder emptying. In patients with low residual volume, no further intervention is necessary. Early investigation of chronic urinary retention, correct diagnosis and appropriate treatment in this small group of women can result in better health and improvement in their quality of life.

Keywords: Clean intermittent catheterization, painless urinary retantion, residual urine

[OP-169]

A uterine carcinosarcoma case with high levels of AFP (alpha fetoprotein)

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Introduction: To share a rare uterin carcinosarcoma in the literature which presented high levels of alfa fetoprotein

Case Report: A 65-year old postmenopausal patient who complains about abnormal uterine bleeding applied to our clinic. Her serum AFP level was 3360 ng/ml. The pathology result of endometrial biopsy was carcinosarcoma and she subjected to total abdominal hysterectomy + bilateral salpingooophorectomy and bilateral pelvic and paraaortic lymph node disection. There was no complications neither perioperative nor postoperative. And the patient discharged from hospital at the fourth day of the surgery.

Results: Uterine carcinosarcoma is a rare neoplasm which is have a poor prognosis. There are very few uterin carcinosarcoma cases which presents with high levels of AFP in the literature. There was 10*7*5,5 cm tumor in the uterine cavity which comprise 40% carcioma, 40% sarcoma and 20% yolc sac tumor in our case. There was no myometrial invasion, lymphovascular space invasion or cervical stromal involvement. Both adnexas was normal. There was no uterine carcinosarcomas which presents with high levels of AFP and which has a yolc sac component, in the literature. There are uterin carcinomasarcomas with hepatic component in the literature. The treatment protocol of uterine carcinosarcoma is surgery and adjuvant chemotherapy. AFP levels can be used on follow-up. Our case had carboplatin-paclitaksel regimen after the surgery.

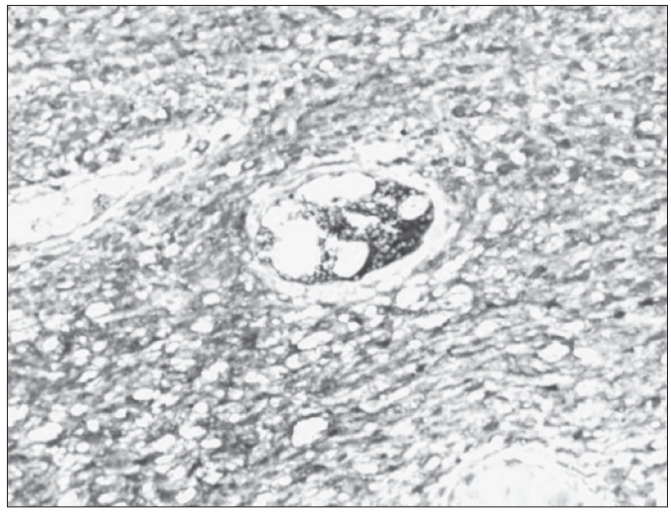

Figure 1. Yolk sac tumor cells showing positivity for AFP

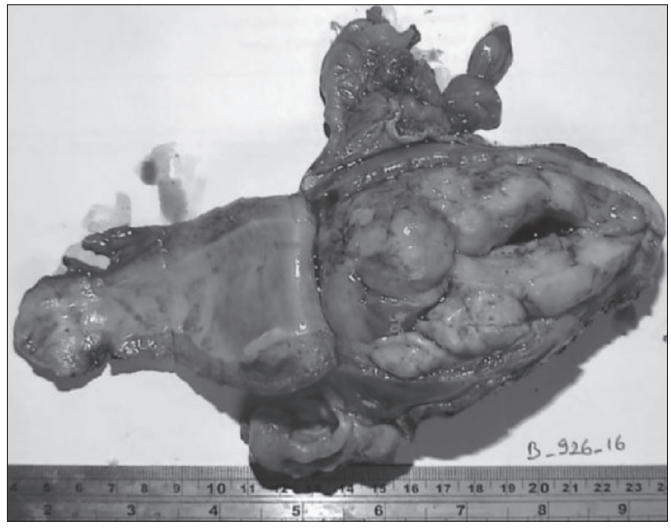

Figure 2. Macroscopic view of the audience

Conclusion: Uterin carcinosarcoma with high levels of AFP is a rare entity. It should not forgotten that yolc sac carcinoma could be accompanied in the histopathological result.

Keywords: AFP (alpha fetoprotein), Carcinosarcoma

[OP-170]

An extremely rare case of complicated appendicitis, in utero appendix with fistula formation

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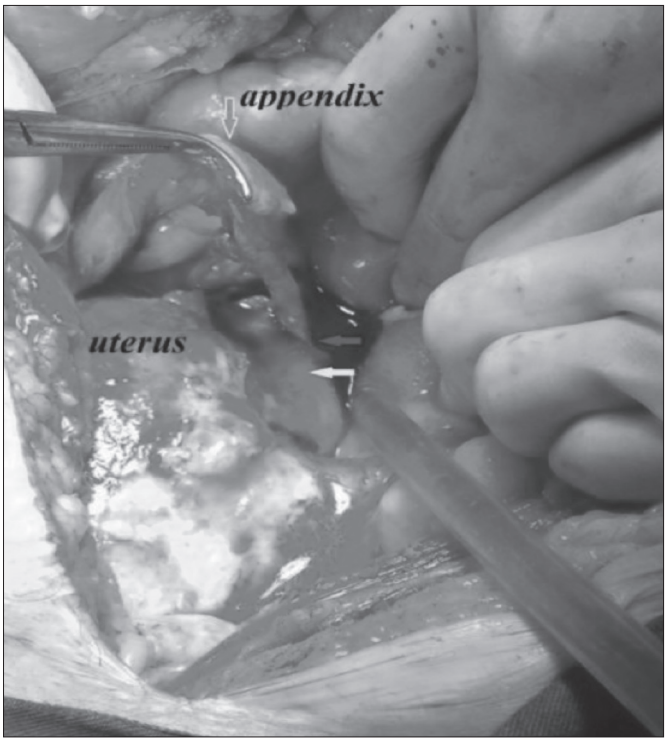

Figure 1. The appendix formed an S-shaped configuration was noted to be enlarged, inflamed, and adherent to uterine surface in its longitudinal plane. The adhesion area on the surface of uterine wall was shown with yellow arrow. The distal part of appendix was embedded deeply into uterus (blue arrow)

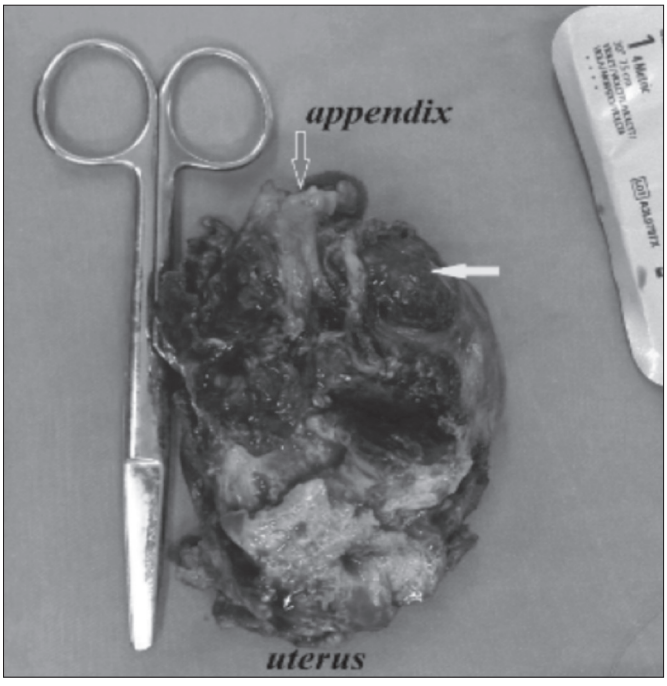

Figure 2. Cut open specimen showed an inflamed appendix invading the myometrium with suppuration and fistula formation. Resected specimen revealed a wide, black area of indurated necrotic tissue (yellow arrow) and inflammatory process involving the entire uterine wall. To preventing the spread of infection, appendix was surrounded by uterine tissue, like a protective barrier

Utero-appendiceal fistula is an extremely rare condition and this is the second case reported thus far. Here we report a case of a 43-year-old female with a presentation of an unusual abscess originating from perforated appendicitis and a fistula between the appendix and uterus. The abscess was surrounded by uterine tissue like a protective barrier so that it becomes a chronic nidus of infection. Although it is important in limiting the spread of infection, the efficacy of antibiotic treatment is probably limited by the same defense mechanisms. Hysterectomy may be the treatment of choice due to destructive effect of inflammatory reactions. This rare condition may be considered in the differential diagnosis of a female patient when presenting with symptoms of pelvic inflammatory disease.

Keywords: Abscess, appendicitis, complicated appendicitis, pelvic inflammatory disease, utero-appendiceal fistula

[OP-171]

Subamniotic hematom: a rare reported condition

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Introduction: Subamniotic hematomas are classical placental pathological lesions resulting from the rupture of chorionic vessels near the cord insertion.The development of these lesions has been rarely reported in utero. We report on one case of subamniotic hematoma diagnosed prenatally and outline its sonographic and pathological characteristics.

Case Report: The patient was 33 years old gravida 3, para 2. At 16 weeks of gestation a triple test was performed: the calculated risk for Down syndrome was 1/10000 The maternal serum alpha-fetoprotein (MSAPF) was 73,6 IU/ml (2,60 MoM).Because of minimal high MSAPF levels fetal abnormality ultrasound is performed at 20 weeks of pregnancy and left renal pelvicaliectazi (9,5 mm) was found. Plasental ve fetal no other abnormality seemed. At 35 weeks of gestation she came for a routine third trimester ultrasound.Grade 3 hydronephrosis seemed in fetal left kidney and on the antero-fundal side of the amniotic sac a peduncular hypoechoic mass of 8x7x4.5 cm surrounded by a thin membrane was visualised (Figure 1). The mass was attached to the uterine wall and was not connected to the fetus, the umbilical cord or the placenta.Color Doppler did not demonstrate flow in the wall or in the lumen. After one day of the routine examination she admitted to the emergency unit with abdominal pain and decrease of fetal movement. She undergo emergency cesarean section with indication of fetal distress. At the operation 50% abruption of plasenta seemed and a male baby was borned with 2 first minute Apgar score. On examination of the placenta a 15x12x4 cm oval-shaped mass was seen, wrapped in the membranes (Figure 2).The mass was not attached to the placenta or umbilical cord. Microscopical examination revealed thrombotic material, compatible with a hematoma.

Discussion: The occurrence of a subamniotic hematoma is relatively rare. It is defined as a hemorrhage between the amniotic membrane and the fetal chorionic plate, following a tear in one of the branches of an umbilical vessel. Most cases are reported at the time of delivery,

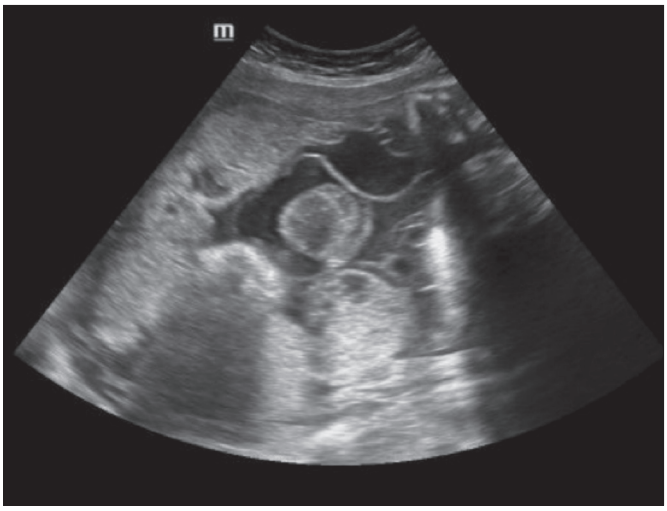

Figure 1.

Figure 2.

and are thought to be caused by traction on the umbilical cord. In the rarer cases of in utero hemorrhage earlier in pregnancy, clot formation and organization occur. The clot is covered by the thin amniotic membrane, and may appear pedunculated into the intra-amniotic cavity. There are several reports in the literature concerning subchorionic hematomas and their association with vaginal bleeding, raised α-fetoprotein levels and poor outcomes such as miscarriage, stillbirth and preterm labor. Although some authors report subchorionic hemorrhages to be a benign finding, others have found their presence to increase the risk of a poor outcome, especially if the hematoma is large.Deans and Jauniaux report high MSAFP at 15–18 weeks and our case had MSAFP of 2,60 MoM at 16 weeks of gestation. The rise in MSAFP may be caused by extravasation of fetal blood into the maternal circulation. The clinical implications of a subamniotic hematoma are uncertain. Intrauterine growth retardation has been reported in 2 cases diagnosed at 18 and 24 weeks, respectively. Our case, diagnosed in the third trimester, had an abruption of plasenta outcome.

Keywords: Subamniotic hematoma

[OP-172]

Squamo-transitional cervical cancer: A case report with unusual clinical findings

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Papillary squamo-transitional carcinoma of the uterine cervix (PSTCC) is a rare neoplasm as subtype of the rare transitional cervical carcinoma, which seems to be a variation of squamous cervical carcinoma. PSTCC can be stated as in situ tumor either with or without invasive part but usually both components existing. Furthermore it is difficult to distinguish PSTCC from other papillary lesions of the cervix. There is a predisposition for metastases at an advanced tumor stage and local recurrence referring to this tumor. We present the case report of an 81 years old patient with squamo-transitional cervical cancer with unusual clinical behavior, which was primarily thought to be an ovarian cancer. She had no vaginal bleeding with normal cervix in the clinical examination and the radiologic imaging; nevertheless, the tumor was already metastasized both at retroperitoneal tissue and the right ovary. Radical debulking surgery was performed.

Keywords: Papillary squamo-transitional carcinoma, unusual metastasis, rare cervix neoplasm

[OP-173]

Polyhydramnios and pregnancy complicated with Bartter's Syndrome: A case report

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Introduction: Bartter syndrome is a renal tubular defect that can be diagnosed prenatally, reports are limited on the prenatal course of pregnancies complicated with the disease in the current literature. In this case review we would like to define and debate on the course of pregnancy complicated with Bartter's syndrome in regard with current literature.

Case Report: A 22-year-old patient (G2P1A0) with 24 weeks of pregnancy who had her previous pregnancy diagnosed with Bartter syndrome was referred to our clinic. According to the history taken from the patient, her other child is currently 4 years old and in good health under regular observation by pediatrics and also the patient revealed that she and her husband are related on 1st degree. When asked about her current pregnancy, patient reveals that a detailed fetal ultrasonographic scan was taken at 20th week showing no significant anomalies other than polihydramnios with amniotic fluid index more than 32 cm in total with the deepest pool being 15 cm. The fetus was delivered with cesarean section. A male infant with APGAR scores of 3 at 1st min and 8 at 5th min with a birth weight of 2030 g (10-50 percentile) was delivered. Neonatal course was complicated with hyponatraemia and polyuria. The diagnosis of Bartter Syndrome was confirmed by laboratory findings afterwards. The child is currently doing well.

Discussion: Case reports of pregnancy complicated with Bartter syndrome are rare.This syndrome was primary described in 1962. Onset may be infancy,childhood,in the neonatal period polyhydramnios occurs in 1–2.8% of all pregnancies and in some cases the aetiology is not identified. Unexplained severe polyhydramnios is a challenge for obstetricians.

In conclusion, we would like to say that Bartter syndrome should be considered in severe idiopatic polyhydramnios cases where no other obvious cause is present.

Keywords: Bartter's syndrome, polyhydramnios, pregnancy

[OP-174]

Intragestational methotrexate treatment cesarean of scar ectopic pregnancy, a case report

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Introduction: Caesarean scar pregnancy is a pregnancy that implants within a caesarean fibrous tissue scar. It is a rare form of ectopic pregnancy with a substantially increasing incidence.There is not a consensus on the method that is preferred for the treatment of scar pregnancy. Such cases are usually referred to advanced center for further evaluation and treatment. Our aim is to present a case that succesfully treated with a single dose of methotrexate.

Case Report: 28-year-old woman, gravida 3 parite 2 and before she has two times cesarean delivery. Patient has admitted to examination center with the suspicion of pregnancy.Cesarean incision scar pregnancy has determined and referred to our hospital. She was pregnant 6 weeks 2 days acording to crown-rump length measurement and the fetus had heart beat. Both transvaginal and abdominal ultrasound revealed a viable singleton gestation that appeared fixed within the myo- metrium, anterior to the cervix (Figure 1). No intrauterine pregnancy was identified. Patient was diagnosed as cesarean scar ectopic pregnancy There were no free fluids in the douglas pouch. Routine tests performed on the patient's blood count and blood chemistry values were found to be normal. Patient were informed about the situation of the pregnancy. If left untreated, the risk of rupture and possible management options, including laparoscopy, suction evacuation, and medical therapy were explained to the patient The decision was made to implement local methotrexate.

With ooctye pick up needle under transvaginal ultrasonography, we have apllicated 50 mg local methotrexate. During and after the procedure was no complication. The patient was discharged the next day. Until the β-hCG (β-subunit of human chorionic gonadotrophin) levels normal, patient has called to controls weeks by weeks.

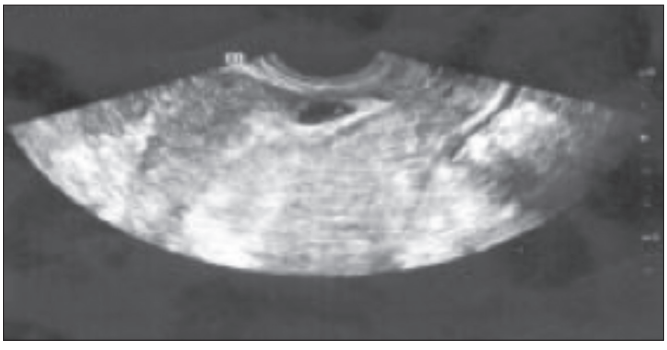

Figure 1. Transvaginal ultrasonographic appearance of Cesarean scar ectopic pregnancy

Conclusion: Initial treatment of scar pregnacy by substracting scar tissue was at 1978. In the literature, many treatment modalities despite the cesarean scar pregnancy is not yet a full consensus on the most appropriate treatment approach. In our case, we have the local methotrexate treatment transvaginal to gestational sac.After one month, β-hCG levels was normal. As a result, intra gestational transvaginal methotrexate treatment has a short duration, safe and has no major complications and is a treatment method that allows us to avoid surgical procedures.However, further studies needed for the effective treatment modalities.

Keywords: Cesarean scar ectopic pregnancy, methotrexate

[OP-175]

Hyperandrogenism of ovarian origin in postmenopausal woman: Is surgery reasonable for diagnosis and treatment?

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Objective: Hyperandrogenism of ovarian origin is a condition of excessive androgen secretion from the ovary that manifests with signs of virilism (1). Diagnosis of ovarian causes of hyperandrogenism in postmenopausal woman may be difficult. We present a case of postmenopausal hyperandrogenism caused by ovarian stromal hyperplasia and right ovarian luteoma. Total abdominal hysterectomy and bilateral salpingo-oophorectomy was performed for both the diagnosis and the treatment. In this report, we sought if the surgery is reasonable for diagnosis and treatment of hyperandrogenism of ovarian origin in postmenopausal woman.

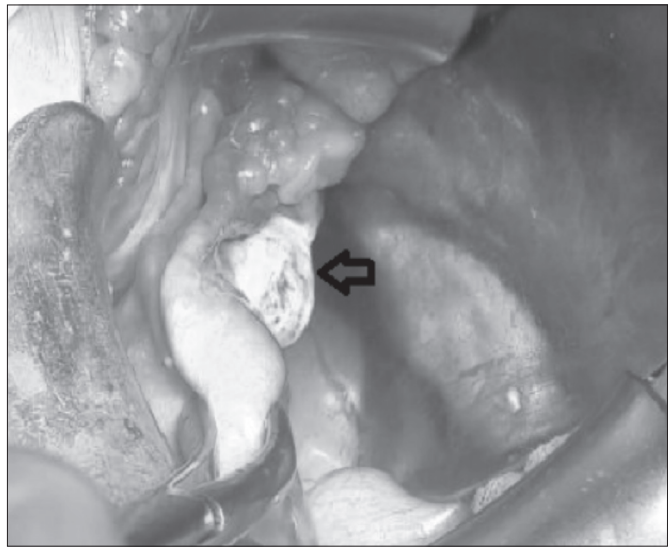

Figure 1. Voluminous right ovary

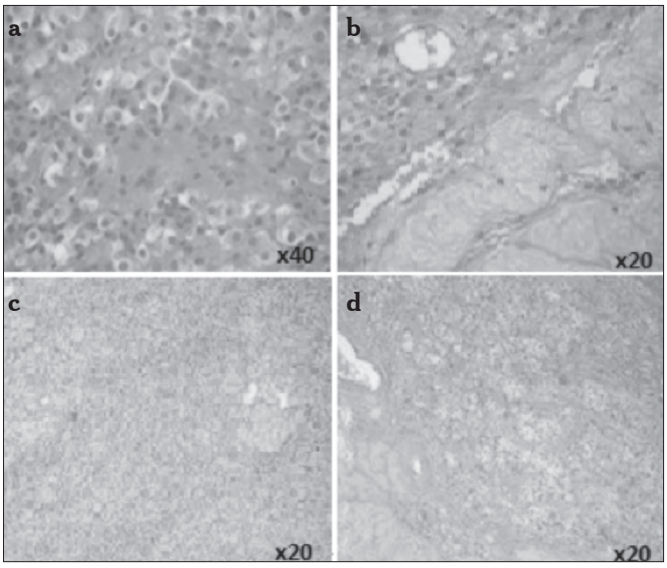

Figure 2. a-d. Luteinised cell proliferation (a, b, d) and stromal hyperplasia (c), Right ovary, HE

Case Report: A 78-year-old woman presented with hirsutism, male pattern baldness and deepening voice had progressed within 2-3 years. She had had regular menstrual periods until menopause at age of 51. Her past medical history revealed non-insulin dependent diabetes mellitus and hypertension had diagnosed 15 and 20 years ago, respectively. General examination was unremarkable except the evidences of virilism. Male pattern hirsutism was predominat on the face and around the umblicus. Hair loss of forehead and temporal areas had caused alopecia. Ovaries were found palpabl in gynecologic examination and larger for her age in transvaginal sonography. Clitoral enlargement was not detected. There were no evidence of adrenal or ovarian tumor with magnetic resonance imaging. In spite of normal serum levels of dehydroepiandrosterone sulfate, androstenedione and 17 hydroxyprogesterone; increased total testosterone level was remarkable. Hyperandrogenism of ovarian origin was suspected; therefore, total abdominal hysterectomy and bilateral salpingo-oophorectomy were performed (Figure 1). Pathologic evaluation revealed bilateral ovarian stromal hyperplasia and ovarian luteoma on the right side (Figure 2). Three months later, normal serum total testosterone level and symptomatic improvement were obtained.

Conclusion: Malignant and benign androgen secreting ovarian tumors, ovarian stromal hyperplasia or hyperthecosis and polycyctic ovary syndrome were reported as causes of hyperandrogenism of ovarian origin in postmenopausal woman (1,2). Current diagnostic tools and methods have usually been failed for definitive diagnosis of these conditions (3). Even though malignant tumors are supposed to be detected with imaging and evidences of cancer, only pathologic evaluation provides the diagnosis of benign tumors which are mostly in very small size and non-tumoral benign pathologic conditions of ovarian stroma (4). Therefore, surgery is reasonable for definitive diagnosis and appropriate treatment in postmenopausal woman whose fertility does not matter.

Keywords: Luteoma, ovarian stromal hyperplasia, postmenopausal hyperandrogenism

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[OP-176]

Unilateral renal ectopic kidney during paraaortic lymphadenectomy: A case report

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Kidney, which has a place outside of renal fossa, is called renal ectopia. In a normal position, the kidneys are located retroperitoneal in the lumbar region. The upper pole of the left kidney is placed at the level of the T11 vertebra, whereas the upper pole of the right kidney lies at a lower level, at the level of the T11-T12 intercostal space. The variations in the number, shape, size, position, rotation and the vascularization of the kidneys are of immense importance due to their susceptibilities. An ectopic kidney might be found in the pelvis, abdomen, and thorax. A 51-year-old female, presented with abnormal vaginal bleeding and pelvic pain with a two-week history was referred to the gynecology department. In the pelvic examination, a 4-cm exophytic, cancerous lesion was found in the uterine cervix that extended into the cervical canal. Vaginal fornix and parametrium were not involved. We performed a punch biopsy of the cervix, and it was reported as adenocarcinoma of cervix. For staging work-ups, complete blood counts, blood chemistry, chest X-ray were performed. 18F-fluorodeoxyglucse (FDG) positron emission tomography (PET/CT) was also performed. It demonstrated significant uptake in the mass 8 centimeters to 6 centimeters on cervix. There is no evidence of distant metastasis or any suggestive metastatic lymph node. Clinically, stage IB was suggested and radical hysterectomy, bilateral salphingooopherectomy with pelvic and para-aortic lymph node dissection was performed. In exploration uterus was larger than normal, there was not any adnexal pathology, and there were no enlarged pelvic para-aortic lymph nodes or ascites. During the para-aortic lymph node dissection, we encountered one artery and 2 veins, one centimeter under inferior mesenteric artery. They were thought to be ovarian artery and ovarian vein. When adipose tissue was dissected, right ectopic kidney with ureter was detected. Kidney was located between the level of L2–L3 to L4–L5 intervertebral space. In the literature, there has been lots of idiopathic cases. The ectopic kidney might be located in the pelvis, abdomen, and the thorax and also might be unilateral or bilateral. In the litera-

Figure 1. Renal ectopic kidney

ture, the most frequent cases of renal ectopia described male's right side of the pelvis. Uterine cervical cancer is the second most common gynecological malignancy. The cervical cancer is generally characterized by local invasion through interstitial spaces of the pelvic tissue and by circulatory pathway of lymph dissemination through the lymph nodes of uterus and cervix. Surgical staging has been demonstrated to be the best option for establishing the status of para-aortic node in women with cervical cancer. Standard treatment for patients with early stage cervical cancer is radical hysterectomy, pelvic and para-aortic lymphadenectomy. This has the risk of intraoperative accidents and postoperative associated morbidity. During the radical surgery operations accidental damage of the small intestine or the colon or bladder or vessels might be occurred. However the ectopic renal tissue with vascular involvement was rare condition and might be careful during the para-aortic lymph node dissection in the gynecologic surgery.

Keywords: Cervical cancer, lymphadenectomy, renal ectopic kidney

[OP-177]

Synchronous primary malignant tumors of female genital tract: A case report of endometrial endometrioid adenocarcinoma coexisted with ovarian papillary serous adenocarcinoma

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Objective: Coexistence of endometrial and ovarian tumor is the most frequent among the synchronous primary malignancies of female genital tract (1). We describe a case of endometrial endometrioid adenocarcinoma coexisted with ovarian papillary serous adenocarcinoma in a woman presenting postmenopausal bleeding. The Objective of this report, pointing the early diagnosis of asymptomatic ovarian tumor due to synchronous primary endometrial tumor.

Case Report: A 70-year-old woman complained vaginal bleeding of 6 months' duration. Her last mestruel period was at age of 52. She had a history of hypertension, non-insulin dependent diabetes mellitus and total thyroidectomy for papillary thyroid cancer 20 years ago. Family history of malignancy was negative. General examination including breasts were unremarkable. Pelvic examination revealed palpabl ovaries. Right and left ovary were 44x32x21mm and 34x27x20mm in size; respectively and endometrial line was slightly uneven with transvaginal sonography. Neither a mass lesion nor ascites was found with magnetic resonans imaging. CA 125 was in normal range. Endometrial biopsy revealed glandular hyperplasia. In explorative laparatomy, papillary structures on the ovarian surfaces raised suspicion of ma-

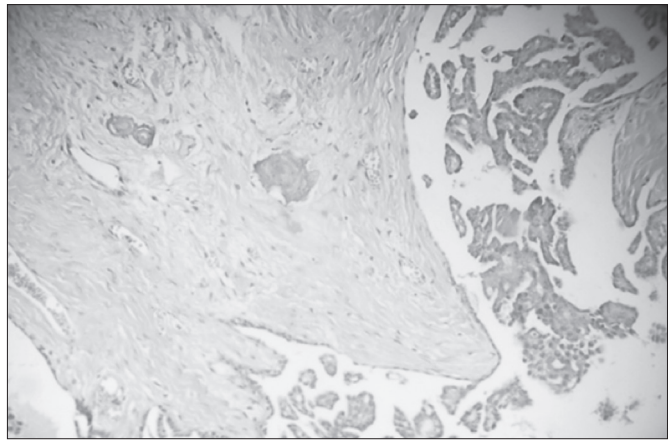

Figure 1. Psammomatous calcifications, Papillary serous adenocarcinoma, Ovary, HE, x100

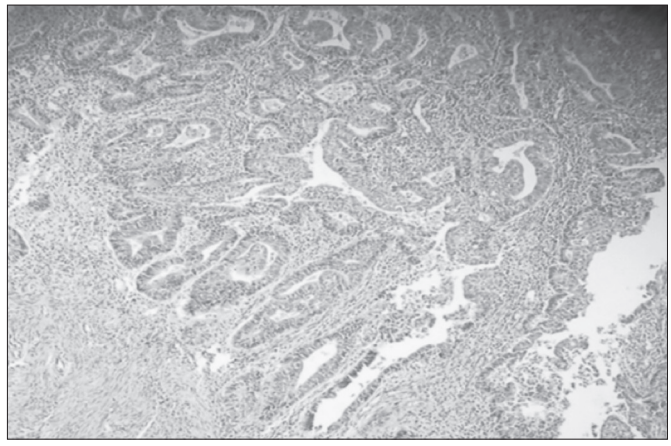

Figure 2. Endometrioid adenocarcinoma, Endometrium, HE, x100

lignancy. Frozen section of the ovaries detected papillary serous adenocarcinoma bilaterally. Total abdominal hysterectomy and bilateral salpingo-oophorectomy with pelvic and para-aortic lymphadenectomy were performed. Pathologic evaluation revealed endometrial endometrioid adenocarcinoma FIGO stage 1C coexisted with primary ovarian papillary serous adenocarcinoma FIGO stage 1C (Figure 1,2). Postoperative management was planned considering two different primary malignancies. Adjuvant chemotherapy with carboplatin and paclitaxel was given postoperatively. The patient was free of disease after 6 months of follow-up.

Conclusion: Synchronous primary malignancy of female genital tract is a rare condition but increasing incidence has been reported (2). Endometrial and ovarian cancers constitute the most common combination (1,2). Prognosis of synchronous tumors is related to the stages of each different disease (3). Early occurence of abnormal bleeding as evidence of endometrial cancer may also lead the early diagnosis of ovarian cancer which is mostly asymptomatic until the advanced stages of the disease. Therefore, it's thought to be complicated to manage both endometrial and ovarian tumor at the same time, but the prognosis may be better than one of them alone with metastasis to another part of the genital tract, because of the early detection of ovarian cancer as a second primary tumor.

Keywords: Endometrioid adenocarcinoma, papillary serous adenocarcinoma, synchronous primary tumor

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[OP-178]

Carcinosarcoma of the fallopian tube: rare case

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Objective: Carcinosarcomas of the fallopian tube are extremely rare. Here we present a case of primary carcinosarcoma of the right fallopian tube.

Case Report: A 55-years old postmenopausal, para 2, Turkish woman was referred to our clinic with pelvic pain. Patient had a history of breast cancer and she was operated 7 years ago. Adjuvant radiotherapy and chemotherapy were also given. No significant familial history was noted. A solid mass in size of 5cm on the right adnexa was determined by the transvaginal ultrasonography. Abdominopelvic MRI was administered and no further findings was reported. While CA125 was 79 U/mL, CEA, CA19-9 and CA 15-3 was normal. Physical examination, mammography and ultrasonography of the contralateral breast were normal. Colonoscopy and gastroendoscopy were reported as normal, also. Upon these findings, laparotomy was performed. On exploration, right tube was swell and in view of completely infiltrated mass. Uterus, bilateral ovaries, left tube, peritoneal surfaces, omentum and upper abdomen were normal. Total abdominal Hysterecyomy, bilateral salpingo-oophorectomy, bilateral pelvic paraaortic lymphadenectomy and omentectomy were made. Frozen section and final pathology result was reported as stage 1c carsinosarcoma of the tube. Six cycle of taxol-carboplatin chemotherapy was decided by the gynecologic oncology council.

Conclusion: Cause of the rarity of the fallopian tube carsinosarcomas, data about the best treatment strategies are limited. However, maximal cytoreduction followed by platinum based chemotherapy seems to be an appropriate treatment.

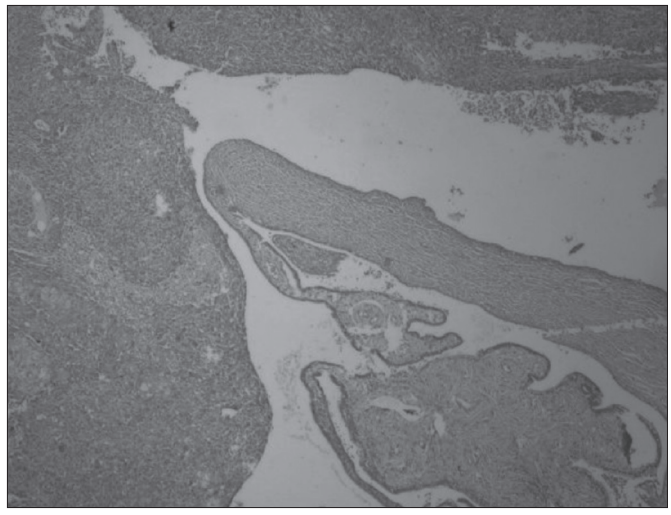

Figure 1. The fallopian tube is completely filled with mesenchymal and epithelial components of malignant mixed Mullerian tumor (H & EX40)

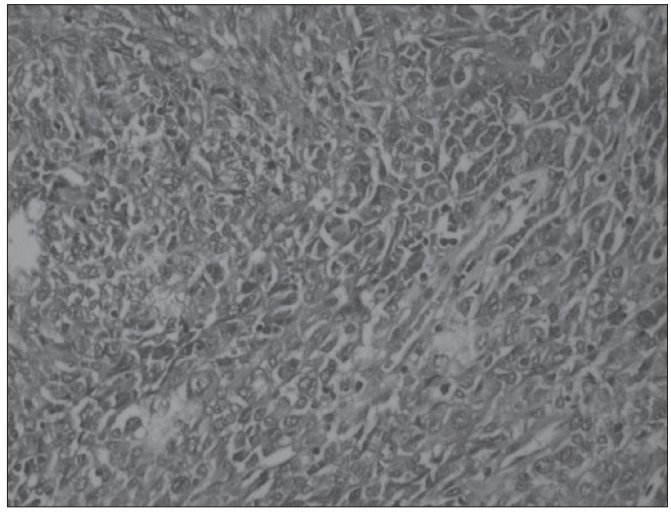

Figure 2. The fallopian tube is completely filled with mesenchymal and epithelial components of malignant mixed Mullerian tumor (H & EX400)

Keywords: Carcinosarcoma, malignant mixed mullerian tumor, fallopian tube

[OP-179]

A case of endometrial cancer presenting with acetebular metastasis

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Objective: Acetabulum is uncommon extraordinary anatomic place for endometrial cancer metastasis. Here we report a case of primary bone metastasis as initial presentation of the endometrial cancer.

Case Report: A 67 years old nulliparous Turkish woman admitted to the hospital with right hip pain. Left salpingo-oophorectomy was performed in the past because of benign ovarian cyst. No systemic disease other than hypertension and no significant familial history was noted. MRI was realized and a mass in size of 40x66 mm was reported in the posterior of the right acetabulum. Biopsy of the mass was taken and the result was recorded as metastatic adenocarcinoma. In order to determine the primary focus PET CT was carried out. PET CT revealed that a mass of approximately 78x63 mm causing significant destruction of bone on the right acetabulum and a heterogeneous increase of F-18 FDG uptake (SUVmax: 11.8) was noticed. Further, irregular enlarged endometrial cavity and increased F-18 FDG involvement (SUVmax:13,4) was observed. Hence, gynecological consultation was requested. Endometrial biopsy was applied and the result was reported as endometrial adenocarcinoma FIGO grade 2. Therefore, total abdominal hysterectomy+ right salpingo-oophorectomy + left salpingectomy + bilateral pelvic para-aortic lymphadenectomy was administered to the patient. Gross pathological examination's result was noted as; endometrial adenocarcinoma FIGO grade 2. Radyotherapy and chemotherapy were planned to the patient by a decision of the gynecologic oncology council.

Conclusion: Endometrial biopsy should be included in the patient's screening when investigated for metastatic bone adenocarcinoma.

Keywords: Endometrial cancer, bone metastasis, acetabulum

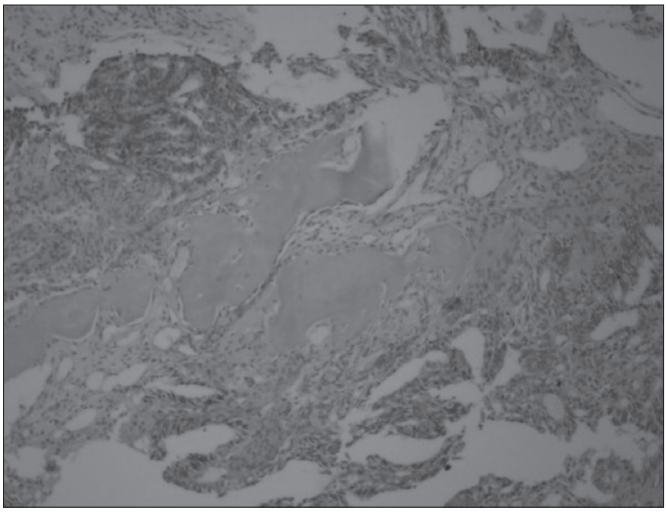

Figure 1. Tumor islands consisting of atypical epithelial cells between bone fragments are monitored in samples taken from a mass in the right acetabular region

[OP-181]

Ovarian hyper stimulation syndrome presented with isolated unilateral right side hydrothorax: two cases and systematic review of the literature

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Objective: The incidence of severe OHSS in infertility treatment is around 1% (1). Although hydrothorax might accompany up to 10% of cases with severe OHSS having significant abdominal ascites (2), there are a few cases reported to have isolated pleural effusion (3-28). Herein, we aimed to report 2 patients with isolated right-side hydrothorax without any significant abdominal fluid following the infertility treatment. Secondly, we performed a systematic review to describe risk factors for isolated hydrothorax and find out an explanation that can achieve a mechanism for this clinic entity.

Case 1: A 28-years old, an infertile patient admitted to emergency service with dyspnea, chest pain, tachypnea and tachycardia eight days after ovulation triggering. She had been treated with intrauterine insemination (IUI) following ovulation induction with exogenous gonadotropin. Cycle characteristics and blood tests were given in Table 1. Whereas only small amount of fluid accumulation was noticed in the recto-uterine pouch, chest X-ray (Figure 1a) and thorax computerized tomography revealed a right-sided unilateral pleural effusion (Figure1b). Her symptoms revealed immediately after drainage of 1500 mL serous pleural effusion.

Case 2: A 31-years old, an infertile patient admitted to emergency service with dyspnea, chest pain, tachypnea and tachycardia four days after ovulation triggering with a GnRH analogue and 1500 IU hCG rescue. She had undergone intracytoplasmic sperm injection and embryo transfer cycle. Since she did not had significant abdominal ascites, chest X-ray was performed that subsequently revealed right-sided pleural effusion. Nevertheless, her symptoms relieved following transthoracic paracentesis of 1500 mL serous fluid. We decided to vitrify all available embryos. Results of the Literature Review: We systematically reviewed the current literature for reported cases of isolated hydrothorax after any infertility treatment. Accompanying

Table 1. The available English literature reporting isolated hydrothorax without accompanying abdominal ascites as unusual manifestation of ovarian hyper stimulation syndrome (1990 – 2016)

Reference	Age (years)	Treatment	E2 max pg/ml	Retrieved oocyte (n)	Starting day of symptoms after Triggering d	Admitted service or department	Hydrothorax sight	Laboratory findings Hemoglobin / Hematocrit / White Blood Cell	Total drainage (ml)
Hsieh MJ, 1994	30	GIFT	NA	NA	6	Emergency	Right	NA / NA / NA	6800
Levin MF, 1995	28-43(5 case)	IUI and IVF	NA	NA	NA	NA	Right	NA / NA / NA	NA
Arikan G, 1997	29	ICSI	1510	NA	14	OB/ GYN	Left dominance	NA/ 49.0%/35.7x10^3	4000
	30	IVF	694	22	8	OB/ GYN	NA	NA/ 47.0%/15.2x10^3	Conservative
Man A, 1997	27a (24-29)	IUI	NA	NA	9	Pulmonary Disease	Right	NA / NA / NA	2000
	27a (24-29)	IUI	NA	NA	12	Pulmonary Disease	Left	NA / NA / NA	2000
	27a (24-29)	IVF	NA	NA	NA	Pulmonary Disease	Right	NA / NA / NA	1500
	27a (24-29)	IVF	NA	NA	NA	Pulmonary Disease	Right	NA / NA / NA	1200
Friedler S, 1998	29b	ICSI	2536	27	14	OB/ GYN	Right	11.8 mg/dl / 35.0% /13.9x10^3	1700
	29b	ICSI	3000	22	7	OB/ GYN	Right	10.9 mg/dl / 32.0%, / 9.8x10^3	Conservative
	33	ICSI	3000	19	7	OB/ GYN	Right	15.4 mg/dl / 46.0% / 20x10^3	4500
Wood N, 1998	29	IVF	3479	18	9	OB/ GYN	Right	17.4 mg/dl / 51.4 % / NA	800
Jacob S, 1999	31	IVF	3405c	24	14	OB/ GYN	Left	17.0 mg/dl / NA / 28x10^3	Conservative
Roden S, 1999	34	IVF	3214	NA	7	Pulmonary Disease	Right	NA / 46.0% / 12.7x10^3	1000
	33	IVF	NA	NA	14	Pulmonary Disease	Right	NA / 48.0% / 13.6x10^3	Conservative
	29	IVF	NA	NA	8	Pulmonary Disease	Right	NA / 50.0% / 18.6x10^3	Conservative
Rabinerson D, 2000	35	IVF	7340	13	16	OB/ GYN	Right	NA / NA / NA	6800
Tansutthiwong AA, 2000	38	IVF	3322	10	14	OB/ GYN	Right	NA/ 44.0% / NA	3800
Thomas F, 2003	35	IVF	NA	NA	4	Emergency	Right	14.8mg/dl / NA / 22.2x10^3	10000
Aldawood AS, 2003	36	IVF	4358c	25	5	OB/ GYN	Right	NA / 49.0% / 15x10^3	7200
Murray A, 2004	33	ICSI	9868	26	7	OB/ GYN	Right dominance	13.8 mg/dl / 40.0% / NA	Right: 7850, Left: 450
Qublan HS, 2006	29	IVF	2700	NA	NA	OB/ GYN	Right	NA / 35.0% / 13.9x10^3	1300
Tang HH, 2007	35	IVF	2052	8	NA	Emergency	Right	13.6mg/dl / 38.6% / 15.9x10^3	Conservative
El-Toukhy T, 2007	41	IVF	NA	9	NA	Emergency	Right	NA / 42.0% / 13x10^3	6000
Ciepiela P, 2007	32	ICSI	NA	8	8	OB/ GYN	Right	NA / NA / NA	1600
Beji O, 2008	26	IVF	NA	NA	4	Emergency	Right dominance	11.7 mg/dl / 49.0% / 21x10^3	5300 (Total right and left)
Yıldızhan R, 2008	24	IVF	4000	NA	NA	Emergency	Right	18.0 mg/dl / 52.0% / 29x10^3	T/S, NA
Gupta S, 2009	21	IUI to IVF	1272	10	16	OB/ GYN	Right dominance	NA / 34.0% / 11x10^3	Conservative
George K, 2010	24	IUI to IVF	4000	NA/freeze	4	OB/ GYN	Right	NA / 40.2% / NA	900
Mullin CM, 2011	25	IVF	3731	44	4	OB/ GYN	Right	NA / 44.0% / NA	2900
	41	IVF	2552	18	6	OB/ GYN	Right	NA / 48.4% / NA	4850
Junqueira JJM, 2012	27	IVF	NA	NA	9	Thorax surgery	Right dominance	NA / 40.5% / 23.2x10^3	Right: 10700, Left: 6640
	30	IVF	NA	NA	12	Thorax surgery	Right dominance	NA / 53.7% / 20.4x10^3	Right: 22360, Left: 650
	33	IVF	NA	NA	8	Thorax surgery	Right dominance	NA / 47.0% / 26.3x10^3	Right: 11580, Left: 8100
Bass L, 2012	29	IVF	NA	NA	15	Emergency	Right	16.3 mg/dl / 48.8% / 23.2x10^3	T/S, NA
Presented Case-1	28	IUI	2100	NA	8	Emergency	Right	15.1 mg/dl / 45.9% / 16.4x10^3	1500
Presented Case-2	31	ICSI	2890	21/freeze	4	OB/ GYN	Right	14.9 mg/dl / 44.0% / 15.8x10^3	1500

a Mean age; b Same patient with 2 cycles; c Converted from pmol/L; d Calculated according to ET day; NA: not applicable or not available; T/S: Thoracentesis

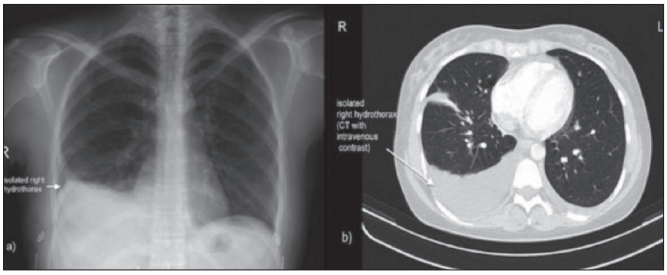

Figure 1.

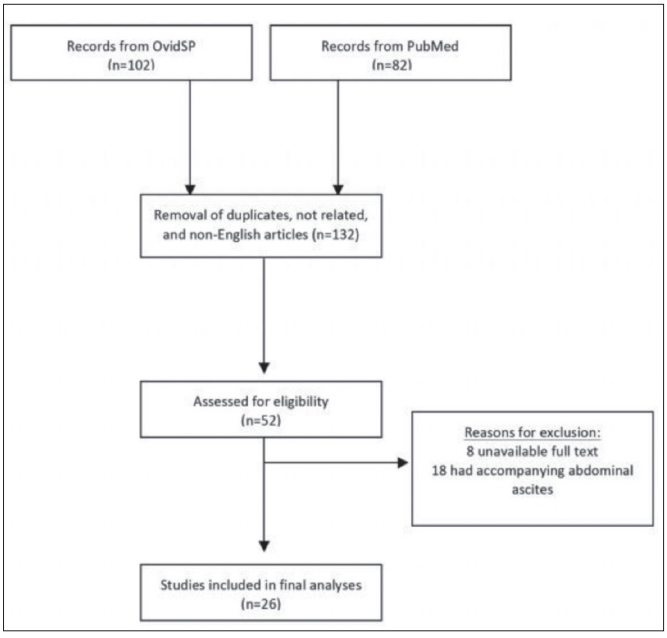

Figure 2. The PRISMA flow diagram

ascites were taken as exclusion criteria (Figure 2). The available data from 26 report suggest that a 92.5% (37/40) of the isolated hydrothorax present with right side dominance. For the respect of estradiol levels on the day of triggering, 17 out of 21 reports noticed <4000pg/mL. In addition, Htc was <45% 12 out of 27 on the day of admission (Table 1). According to available literature, the leading explanation for isolated hydrothorax appears to be "Porous Diaphragm Syndrome"(29). Previously, it was accused for many clinical situations including Meigs' syndrome, peritoneal dialysis-related hydrothorax and hepatic hydrothorax. In this syndrome, mainly, negative hydrostatic pressure during inspiration leads fluid escape from right-upper abdominal quadrant throughout the diagram to the pleural cavity. Piston-like motion of liver capsule might also contribute to the amount of fluid that has been transporting.

Conclusion: Isolated hydrothorax is an uncommon and unpredictable event, which may even complicate women with low estradiol levels or hematocrit concentrations. The clinicians should keep in mind the possibility of isolated hydrothorax particularly when respiratory symptoms are significant and abdominal ascites is not evident. In the view of clinic practice, performing thoracic ultrasonography simultaneously with abdominal scanning for abdominal ascites might be useful to shorten the duration of diagnosis. Chest x-ray and computerized CT should be preferred for selected cases to exclude the diagnosis of pulmonary embolism.

Keywords: Ovarian hyper stimulation syndrome, isolated unilateral hydrothorax, isolated pleural effusion

[OP-182]

Extreme leukocytosis in obstetric patients

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Objective: Normal pregnancy is characterized by profound changes in hematologic system to compensate the demands of the fetoplacental unit. The most significant hematological changes during pregnancy include physiologic anemia, neutrophilia, mild thrombocytopenia, increased procoagulant factors and diminished fibrinolysis. The complete blood count (CBC) is ordered routinely in pregnant women. Leukocytosis is defined as total WBC count more than 11000/μL in adults. During pregnancy, WBC count increase gradually. It is important to distinguish normal increase in WBC count from abnormal increase during pregnany and postpartum period.

We aimed to determine relationship between high WBC count and abnormal conditions (Table 1).

Case 1: A 32-year-old woman had been referred with labor pain at 39 weeks of gestation. WBC count was 21000/μL preoperatively, 119000/μL postoperatively. Then she was consulted with Hematology-Oncology Department by which she was taken over with the diagnosis of acute lymphoblastic leukemia (ALL).

Case 2: A 23-year-old woman had been admitted with labor pain at 38 weeks of gestation. On admission, her leukocyte count was 83000/μL. Postoperatively WBC count was 86000/μL and 55000/μL. Abdominal and chest tomography was done and hepatosplenomegaly was identified and presence of lympadenopathy was noticed. With confirmatory tests, lymphoma was diagnosed and management was planned with Hematology-Oncology Department.

Case 3: A 20-year-old woman had been consulted to our clinics with the complaints of fever, pelvic pain, foul-smelling discharge and surgical site infection. She gave healthy birth 6 days ago with cesarean section. WBC count was 42000/μL preoperatively, 54000/μL postoperatively. The reason for these adverse postpartum events was chorioamnionitis.

Case 4: A 26-year-old woman had been admitted with epigastric pain, hypertension and vaginal bleeding in the 33th weeks of gestation. Because placental abruption had occurred, cesarean delivery was performed. WBC count was 43000/μL preoperatively, 56000/μL postoperatively. This high WBC count was a clue for preeclampsia.

Case 5: A 19-year-old woman had been consulted to Emergency Service in cardiac arrest. She had given vaginal birth nine days ago at 31st

White blood cell count and diagnosis of patients

Cases	White Blood Cell Count (μL)	Diagnosis
1	119000	Acute Lymphoblastic Leukemia
2	83000	Lymphoma
3	54000	Chorioamnionitis
4	56000	Preeclampsia
5	41600	Addiction
6	55600	Acute Lymphoblastic Leukemia

weeks of gestation. Leukocyte count was 41600/μL. It was understood from the patient's records that there had been leukocytosis during labor. She was addicted bonzai and used during pregnancy.

Case 6: A 19-year-old woman had been referred with labor pain at 32 weeks of gestation. With the indication of fetal distress, a girl was delivered by cesarean section. WBC count was 46000/μL preoperatively, 55600/μL postoperatively. The patient was taken over by Hematology-Oncology Department for management of ALL.

Conclusion: CBC is ordered routinely in all pregnant women. WBC count is less focused as a component of CBC unless there is any suspicion of infection. But it is important to be aware that leukocytosis could be a hallmark of any disease. Although not specific, many obstetrical complications and adverse pregnancy outcomes such as preterm delivery, gestational diabetes mellitus or hypertension could be understood with high WBC count. Hematological malignancies may not be understood during pregnancy because symptoms of these malignancies are similar to normal symptoms of pregnancy. So this overlapping symptomology may cause a delay in diagnosis.

Keywords: Leukocytosis, pregnancy, puerperium, leukemia, lymphoma

[OP-184]

The family with Bartsocas Papas Syndrome from Turkey

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Introduction: The first case of Bartsocas Papas Syndrome (BPS) was recorded in 1600 but Bartsocas and Papas was described in 1972in the heredity pattern and other anomalies. The frequency of BPS is 1:650000. The majority of the cases were among consanguineous Mediterranean families. BPS is a lethal form of Popliteal Pterygium Syndrome (PPS), but BPS is seen in hands, feets and facial abnormalities more often than PPS. BPS is a rare, autosomal recessively inherited form of the PPS characterized by microcephaly, severe popliteal webbing, oligosyndactyly, genital abnormalities, a typical face with short palpebral fissures, ankyloblepharon, hypoplastic nose, filiform bands between the jaws and facial clefts, and other ectodermal anomalies (i.e. loss of hair, eyebrows, lashes, nails). Most cases were born between 30 and 38 weeks. With ultrasound in the first trimester the identification of limb abnormalities can be diagnosed. Genetic mutations in IRF6 gene have been identified with severe PPS, this has not been replicated in the cases with BPS. Visceral organs may be affected but usually they are reported as normal and functioning. Namely, the urogenital tract abnormalities of BPS are dysplastic kidneys, blind-ending ureters, dilated bladder, and absence of urethra. Children with BPS are thought to have normal cognitive functions. It is often fatal in the neonatal period, but patients living until childhood have been reported.

Case Report: In our case; a 34-year-old Turkish woman was first seen for contraction in Emergency at 33 weeks. She and her 38-year-old husband were consanguineous, related through her mother and his father so they were a case of cross-cousin marriage family. She and her husband and their brothers had BPS children who could not take the first breath. 6 newborn died in the neonatal period. 1 child is 4 years old and his treat-

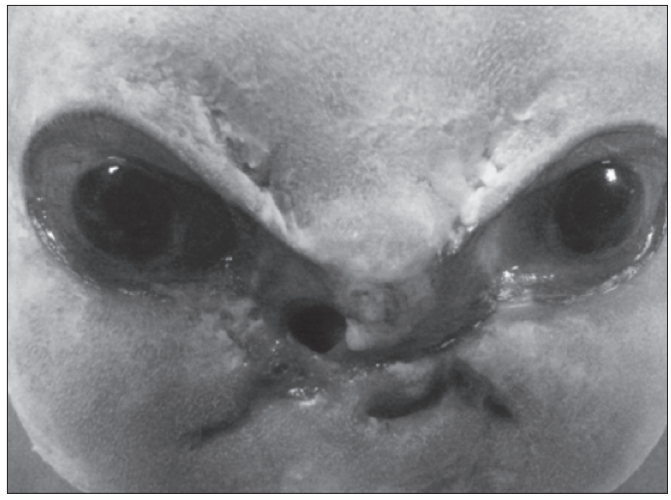

Figure 1. The face of the newborn had mid facial cleft, lowset ears, cleft lip, ectropion of the eyelids

Figure 2. The newborn had bilateral pterygia, bilateral popliteal and thick skin bands connecting the upper part of genitalia and soles both feet, talipes equinovarus with hypoplastic toes, syndactyly bilaterally

ment is in progress. When she came in hospital, her vaginal examination was 8-9 cm cervical dilation and 80-90% effacement. Fetal membranes were intact and fetal presentation was vertex. She was prepared quickly for the vaginal delivery. The newborn had mid facial cleft, lowset ears,-cleft lip bilateral pterygia, bilateral popliteal and thick skin bands connecting the upper part of genitalia and soles both feet, talipes equinovarus with hypoplastic toes, syndactyly bilaterally. Obstructive apnea was noted and an emergency intervention was performed. But even thopugh an intervention was applied, the newborn died. Postmortem examination of the newborn in ultrasonografi and X-Ray, the visceral organs and skeletal were seen as normal. The family didn't avow the genetic tests.

Conclusion: BPS is seen more often in Mediterranean countries and when the literature is investigated it is seen that this form which is deadly and hereditary transitive is repeated for generations. As in our case due to the reasons like continuation of lineage and ostracisation deadly incidents and sick children are not revealed and marriages among relatives are realized. Especially, providing genetical consulting to families with low socioeconomic levels may cause a serious decline in the incidence rate of the disease.

Keywords: Bartsocas Papas Syndrome, Popliteal Pterygium Syndrome

[OP-185]

Ligneous inflammation of female genital tract and conjunctiva associated with plasminogen deficiency: A case report

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Introduction: Ligneous inflammation is a rare condition that characterized by accumulations of fibrin-rich eosinophilic material in a variety of anatomic locations such as conjunctiva, oral cavity, respiratory tract, gastrointestinal tract, kidneys and female genital tract. It is an autosomal recessive chronic inflammatory disorder with recurrences, and unfortunately there is no curative treatment. It is caused by plasminogen deficiency. We present a patient with multifocal ligneous inflammation involving her genital tract and conjunctiva, which was associated with plasminogen deficiency that proven by laboratory and molecular measurements.

Case Report: A 45-year-old G0P0 woman presented at our gynecology clinic with a lack of sexual intercourse and white vaginal discharge which included white plaques. She had also been suffering from primary infertility for 20 years. On gynecologic examination, the vagina was completely covered with dense and white plaque so the speculum could not be placed in the vagina. When we attempt to manually excise the lesion in the vagina, gave an interesting feeling reminiscent of surface of candle. Transvaginal ultrasonography found that uterus, ovaries and endometrium were normal. A 38 mm subserosal fibroid in the right side of fundus and 17 mm intramural fibroid which was localized in posterior corpus were observed. A 42 mm length and 22 mm width hypoechoic and avascular lesion was observed in the vagina. The endometrial thickness was 7 mm. The MRI analysis revealed that the distal lumen of vagina was closed, and a collection with an anteroposterior diameter of 30 mm that was extended to cervix and likely to be hydrocolpos was observed in the proximal lumen of vagina. In her medical history, a vaginal dilatation with hegar plugs was applied 16 years ago when she presented with the same complaints. One important points was a remarkable fusion of her left eyelid. In the medical investigation of infertility, her basal hormones and her husband's spermiogram was normal. Plasminogen functional activity was 9 % of normal (reference, 55–145%). Firstly biopsy was taken from lesion in the vagina.The histopathological report revealed mild squamous epithelial hyperplasia, spongiotic dermatitis and subepithelial accumulation of hyalinizing proteinaceous material and it was consistent with ligneous inflammation. Then, under general anesthesia, the fibrinous material in the vagina was evacuated by blunt and sharp dissection and then the cervix was visualized (Figure 1). She underwent vaginoscopy and hysteroscopy. The endocervical canal, uterine cavity and bilateral tubal orifices were normal.

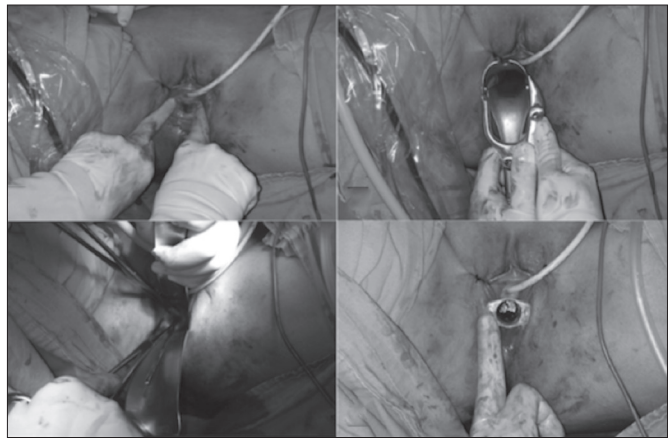

Figure 1. Intraoperative photos

Figure 2. The view of vaginal prothesis

The cervical smear and endometrial biopsy were taken. Local estrogen and the vaginal prothesis that was designed according to the patient's vagina was applied for 3-6 month (Figure 2). Her endometrial biopsy revealed endometrial hyperplasia without atypia so she underwent progesterone treatment for 3 months, subsequent biopsy was normal. Smear report revealed ASCUS. The result of smear, which was obtained after the treatment of vaginal infections, was normal. Now, our patient have regular menstruel cycles and she does not experience a problem with sexual intercourse.

Conclusion: Most gynecologists are unfamiliar with this diagnosis, and lack of awareness of this unusual entity can cause diagnostic difficulties.

Keywords: Ligneous inflammation, genital tract, conjunctiva, plasminogen deficiency

[OP-186]

A case of glioma arising in an ovarian mature cystic teratoma

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Objective: We describe a case of glioma arising in an ovarian mature cystic teratoma. It is important for both pathologists and clinicians to be aware of this uncommon entity to avoid misdiagnosis of gliomatosis peritonei (GTS) as recurrence of immature teratoma and disease progression.

Material and Methods: A 26-year-old nullipar woman presented with a history of 5 months of pelvic pain and persisiting ovarian cyct. An ultrasound examination showed a cystic mass approximately 7 cm in diameter arising in the left adnexia. There was no hyperechogenic zones or other findings in pelvic ultrasonography. Serum levels of CA 125 and AFP (alphafetoprotein) were within normal limits. Laparoscopy was performed. A cyctic ovoid mass was found arising from the left adnex. The external surface was smooth uterus, other pelvic structures and the liver were grossly normal. Cytectomy was performed as fertility preserving surgery. Pathogic and immunohistochemical examination showed glial cells, but no mitotic activity, no necrosis, no immature component. GFAP(+) and Ki-67-labeling index was about 1-2 % These findings were consistent with a low-grade glioma arising in a mature ovarian cystic teratoma. Cyst relapsed within 3 months after the first operation in this case.

Results: Ovarian mature teratomas are full of suprises because their structure driving from the three germ layer. Tumors of neuroepithelial origin are extremely rare in mature teratomas. We report a case of overian mature teratoma in which glial cell arising in. Ovarian teratomas account for approximately 25% of all ovarian tumors. Malignant transformation is uncommon and is seen in approximately 2% of cases, usually in older women, the most common malignancy is squamous cell carcinoma (75% to 80%).Peritoneal, omental biopsies and the peritoneal washing are important. GTS is defined as nodules of mature glial tissue in the peritoneal cavity and omentum in patient with ovarian teratoma. GTS is refractory to chemotherapy and radiotherapy, surgery is the main modality of treatment and if incomplete, long-term follow-up with imaging is recommended.

Conclusion: The implant of the mature glial cells has a high risk of relapse, as seen in our case, thus close follow-up of the patient is necessary.

Keywords: Ovarian glioma, ovarian teratoma

[OP-187]

Two cases of vanishing endometrial carcinoma

Ömer Erkan Yapça

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Introduction: To present two cases which had been diagnosed to have endometrioid type endometrial carcinoma on endometrial samplings however, histological examination of subsequent hysterectomy specimens had revealed no residual cancer.

Case 1: A 64 years old woman presented with postmenopausal bleeding. Her Body-Mass-Index (BMI) was 18. She was receiving no hormone replacement therapy. Ultrasonography revealed 8 mm endometrial thickness and normal ovaries. Endometrial sampling was performed. Histological examination revealed malignant epithelial tumor cells without identification of endocervical/endometrial origin. Cervical smear was reported as normal. No preoperative progestin therapy was not applied. About 2 weeks later she underwent surgery including peritoneal washing, total abdominal hysterectomy with bilateral salpingoopherectomy (TAH-BSO), omentectomy and bilateral pelvic and paraaortic lymphadenectomy. There was no remarkable gross pathology within the cervical canal and endometrium. In histopathological examination, there was no malignancy in either frozen section or final pathology report in any of the specimens removed during the surgery.

Case 2: A 51 years old perimenopausal woman presented with abnormal vaginal bleeding. Endometrial biopsy was performed by use of the D&C technique and displayed endometrioid-type endometrial carcinoma on polyp surface which was reported to have nuclear grade 2 and histologic grade 1 together with focal areas of hyperplasia with complex atypia and necrosis. She received no preoperative progestin therapy. She underwent surgery 1 week after the biopsy including peritoneal washing, TAH-BSO, omentectomy and bilateral pelvic and paraaortic lymphadenectomy. Thorough frozen section and final examination of the hysterectomy specimen revealed no residual tumor but foci of hyperplasia with complex atypia on polyp surface. Other specimens removed during the surgery were also negative for malignancy. Previous slides of endometrial biopsy were reviewed and confirmed the diagnosis of endometrial carcinoma. After 4 months surgery she was well with no evidence of disease and was not on any adjuvant therapy. In both of the hysterectomy specimens, there were no overt findings pertaining to a post-biopsy reparative process such as necrosis, vascular thrombi or giant cell reaction.

Conclusion: Diagnosis of gynecological cancers is made by biopsy before radical surgery except for ovarian cancers. Endometrial biopsy is the gold standard diagnostic tool for endometrial cancer. In some cancers such as prostate and colon as well endometrial cancer final tissue may not confirm presence of cancer despite initial biopsy is positive for malignancy. This is called vanishing cancer. In this report, we presented two cases which had been diagnosed endometrioid type endometrial carcinoma on endometrial biopsy sampling. However, in hysterectomy specimen there was no residual cancer. Clinicians should be aware of this phenomenon which may cause medicolegal issues as well as clinical challenges.

Keywords: Vanishing endometrium cancer

[OP-188]

Incarcerated retroverted gravid uterus misdiagnosed of recurrent urinary tract infection

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Introduction: Incarceration of gravid uterus is a rare situation. It usually presents at 14-16 weeks of pregnancy with the complaints of abdominal pain and the urinary problems. We report a case of incarcerated retroverted gravid uterus presenting at 17 weeks of gestation with misdiagnose of recurrent urinary tract infection for 4 weeks.

Case Report: A 23 year old primigravida was admitted to our otpatient department at 17 weeks of gestation. She was having continuous lower abdominal pain and increasing difficulty to empty bladder for 4 weeks. She had been diagnosed as recurrent urinary tract infection and had been given antibiotherapy by an out-center. In her examination her cervix could not be visualized entirely due to severe anterior location. Bimanual examination revealed diffuse tenderness and a palpable mass in the posterior cul de sac consistent with a retroverted uterus, but otherwise no gross abnormalities. The remainder of her physical, obstetric, laboratory and ultrasonographic examinations were unremarkable. Attempts to manually reduce the incarceration by intravaginal and intrarectal pressures in knee-chest position were successful. She was discharged with a viable pregnancy and with no complaints.

Discussion: Incarceration of the uterus is a rare complication, occurring in one of 3000 cases. Usually the retroverted uterus undergoes spontaneous correction in the early second trimester. However, a retroverted or retroflexed uterus can become entrapped between the subpromontory sacrum and the pubis. Factors and preexisting conditions that may predispose a patient to an incarcerated uterus include: multiparity, adhesions from endometriosis or prior pelvic inflammatory disease, anatomical abnormalities, pelvic tumors, and uterine fibroids. Presenting symptoms include: abdominal pain and urinary problems. If untreated, patients may go on to develop anterior uterine wall thinning or sacculation, bladder rupture, preterm labor, premature rupture of fetal membranes, spontaneous abortion, or uterine rupture during labor. Treatment includes first draining and decompressing the bladder with an indwelling catheter. Next, reduction of the uterus can be attempted by applying steady pressure with two fingers in the posterior vaginal fornix directing the uterus cephalad while the patient is in the dorsal lithotomy position, knee-chest position, or under anesthesia.

Keywords: Incarcerated uterus

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[OP-189]

Aspergillus in a cervico-vaginal smear of a postmenopausal female

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Introduction: Aspergillus spp is a fungus known to cause both acquired and nosocomial infections in human beings and has opportunistic nature of infection in the immunocompromised state due to the underlying malignancy. The most commonly affected sites are the lungs, soft tissue, and skin.

We report here an unusual case in which Aspergillus spp. was detected in the cervical smear of a regularly menstruating female who presented with features of pelvic inflammatory disease.

Case Report: A 43 year-old regularly menstruating female was presented to our otpatient department with complaints of a foul-smelling vaginal discharge and pain in the suprapubic region and dyspareunia. Gynecological examination was unremarkable except for painfull cervical motions and two-year precence of intrauterine device. Results of routine clinical and laboratory examinations, including blood glucose levels, were within normal limits. A routine Papanicolaou smear showed the features of inflammation and fungal structures with fruiting bodies consistent with the presence of Aspergillus spp, while background epithelial cells were negative for intraepithelial malignancy. The patient was offered therapy for pelvic inflammatory disease and intrauterine device was kept in place. After four week her control cervicovaginal smear is reported as negative for fungus and again negative for intraepithelial malignancy.

Discussion: The cervicovaginal pap smear is considered an important tool in diagnosing neoplastic lesions. It is also of use in detecting fungal infections especially Candida which shows spores in association with pseudohyphae and budding phenomenon. However, recognition of Aspergillus species requires the presence of characteristic fruiting body with acute angle branching hyphae and spores. It is important to discriminate between primary infection and contamination. In our case, the fruiting body was characteristic of Aspergillus species and present in the same plane with the cervical cells which indicated that there is no contamination. The respiratory system, as seen with aspergilloma, is the most common site of infection, as seen in opportunistic infections in immunocompromised patients. Disseminated disease almost always results from a primary pulmonary infection, but it can also occur from skin inoculation or when no likely entry source is identifiable. In the presented case, Aspergillus was incidentally encountered in a female who presented with pelvic inflammatory disease. The aim of this case report is to draw attention to an unusual site of infection by Aspergillus spp.

Keywords: Aspergillus, cervico-vaginal smear

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[OP-190]

Pelvic pain associated by levator ani syndrome and relieved with prilocaine injection

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Introduction: Levator ani syndrome (LAS) is a general term for chronic or recurring pain in the anal canal or rectum lasting at least 20 min, in the absence of structural or systemic disease explanationsfor these symptoms. Here we presented a case of levator ani syndrome pain of which spreaded to genital and pelvic regions.

Case Report: A 30 year old patient, attended our outpatient department because of anogenital pain. She described that the pain had started shortly after defaecation on that morning and spreaded gradually to genital and pelvic regions. She indicated that she felt as if there is an object within her rectum and vagina. Pain was constricting in nature, moderate but increasing in severity and 2 hours in duration. She had had 5 similar attacks in the past 3 months. And she had been administered oral and muscular analgesics by some clinics but her pain had not relieved and lasted for about 5 hours. Her examination by our general surgeon was unremarkable exept for a mild rectal tenderness. Her medical history and gynecologic exam including pelvic ultrasonography was also unremarkable. We explained the presumptive diagnosis of LAS to her. Then we administered 5 cc prilocaine HCL into the bilateral pararectal area within the anorectal muscle fibers. Her pain was relieved thereafter. One, three and eleven months later she reappeared with the same complaint three times and we performed the same protocol to each episodes.

Discussion: Levator ani syndrome is a functional disorder in which recurrent or persistent distressing pain, pressure or discomfort is felt in the region of rectum, sacrum and coccyx that may be associated with the presence of pain in the gluteal region and thighs. In our case pain was not local to anal area but spreaded to genital region. Often no organic pathology is detected clinically.

Digital massage, sitz baths, muscle relaxants, electrogalvanic stimulation and biofeedback have all been reported to be effective in treating LAS and cause no harm. However, none of these treatment modalities have been evaluated further with controlled trials. Our case responded to pararectal injection of prilocaine HCL and the gaps between the pain attacks were lenghtened gradually. We performed visual analog scale at each episode and we realised that severity of the pain was lower than the one before each time. We thought that all women with chronic pelvic pain shoud be inquired wheter they have any complaint with anal area and the physicians should keep in mind levator ani syndrome as a differantial diagnosis.

Keywords: Levator ani syndrome

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[OP-191]

Non-surgical management of unruptured cornual pregnancies: A case series

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Objective: Cornual pregnancy is a rare form of ectopic pregnancy which complicates 2-4% of all ectopic pregnancies. Surgical and medical management is shown to be superior in treatment of cornual pregnancies. The aim of this study is to demonsrate the outcome of intralesional management and show the safety of local treatment.

Material and Methods: All cornual pregnancies were treated with local methotrexate(MTX) or potassium chloride (KCL) injection between December 2013 and February 2016. All cases were underwent a transvaginal ultrasound examination with the use of a 5-mHz transducer with Doppler facilities. Three criteria were considered which were defined by Timor-Tritsch et al. These are:

i)An empty uterine cavity,

ii) A chorionic sac seen separately and >1 cm from the most lateral edge of the uterine cavity,

iii) A thin myometrial layer surrounding the gestational sac.

All patients and partners were counseled about the management al-

Table 1. Clinical characteristics of cases

Case no	Age	Gravidity/ parity	Gestational week (mIU/ml)	β-hCG level before injection (days)	β-hCG clearance interval	Injected agent	Additional treatment
1	33	G5P0	6w4d	7253	45	MTX	-
2	35	G2P1	6w1d	6868	39	KCL	-
3	32	G2P1	5w6d	3243	32	MTX	-
4	29	G3P1	7w	9456	61	KCL	Systemic MTX
5	38	G1P0	7w2d	10648	58	KCL	-
6	31	G3P2	6w6d	8824	44	MTX	-
7	28	G1P0	6w1d	5246	29	MTX	-
8	34	G3P2	7w1d	12758	49	KCL	-

ternatives and informed consent was obtained. Laparoscopy equipment was ready in operation room in every procedure however surgery was not a necessity. In case of fetal heart beat observation KCL was injected and in case of no heart beat detection MTX was used. All KCL processes were restricted within 2 cc (from1 mEq/ml KCL solution) and MTX were restricted to 12.5 mg totally for each patient.

Under general anesthesia, a 17-gauge single lumen follicle aspiration needle was inserted in lateral fornix and passed through myometrium directly into the gestational sac under transvaginal guidance after sterile circumstances provided.

Results: Although it has been considered as a risk factor, none of the patients had previous ectopic pregnancy, history of infertility/ in vitro fertilization or cornual pregnancy.

Furthermore, habitual abortions were learned from the case no 1's medical history.

In four cases MTX was injected and three patients were received KCL as a local treatment. In case number 4, β-hCG was decreased until 17th day of injection and then drew a plato. Intramuscular MTX was additionally injected to this patient and β-hCG was undetectable in 61st day. None of the patients were encountered neither intraabdominal/vaginal hemorrhage nor infection as a complication in peri/postoperative period

Conclusion: There is numerous case series about the laparoscopic approach or systemic MTX in cornual pregnancies. Nevertheless in local approach, treatment agent can reach to effected area in high concentrations. We have preferred local approach to our patients who suffers from cornual pregnancy. The medicine choice had to be done according to viability of fetus and we have not observed any complications at the end of each patients follow up. Based on this case series local approach seems to be an effective and fertility sparing way for unruptured cornual pregnancies.

Keywords: Cornual pregnancy, methotrexate, potassium chloride

[OP-192]

Heterotopic cesarean scar pregnancy following in vitro fertilization

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Introduction: Heterotopic pregnancy is the coexistence of both an intrauterine and ectopic pregnancy. In Devoe and Pratt's study in 1948, it's incidence was reported to be 1/30,000. However, recent studies reported it's incidence as 1/3889 and may even be as high as 1/100 with the assistive reproductive technologies (ART). Although the rate of cesarean scar pregnancy is increasing as with the increasing rates of cesareans, it is still a rare type of ectopic pregnancy. In this report we present a heterotopic pregnancy case with the ectopic location at the cesarean scar.

Case Report: 41 year-old G4P3A0 gravida had one previous cesarean section 12 years ago. The patient had bilateral tubal ligation (Pomeroy method) together with that cesarean. After many years, patient requested another pregnancy and therefore had intracytoplasmic sperm injection –embryo transfer (ICSI-ET) cycle. Two embryos were given and no anatomic difficulty was occurred during the embryo transfer. Thereafter, during the transvaginal ultrasound (TVUSG) scan at 6 weeks of gestation, the patient was diagnosed as heterotopic pregnancy in which the ectopic locus was on the cesarean scar. Vital signs were stable and laboratory findings were normal. TVUSG showed an intrauterine pregnancy with CRL: 6,2mm (6+3 weeks) and no cardiac activity together with another pregnancy located at the cesarean scar with CRL: 7,1 mm (6+4 weeks) and positive cardiac activity (Figure 1). Laboratory findings were hgb: 11,6 mg/dl and htc:36%. There was no acute abdomen findings. Due to missed abortus for the intrauterine pregnancy and the scar-located ectopic pregnancy, surgical evacuation was not planned as a first line treatment. The patient was given repetitive dose methotrexate (0,1mg/kg) with folinic acid (1 mg/kg).

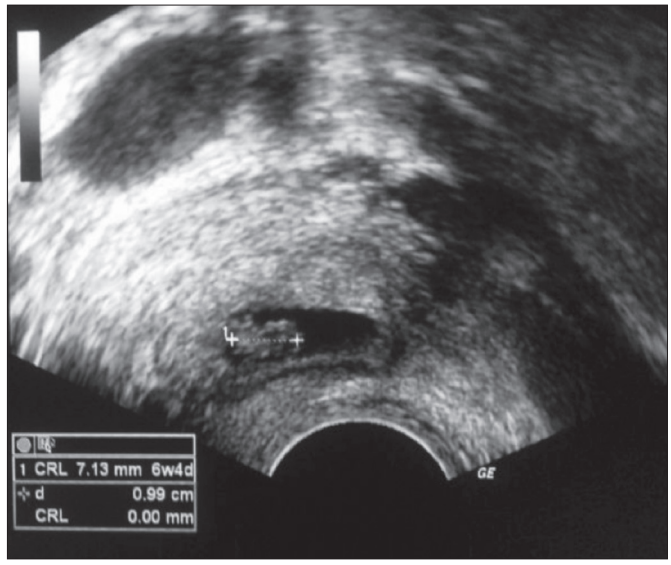

Figure 1. Before methotrexate treatment

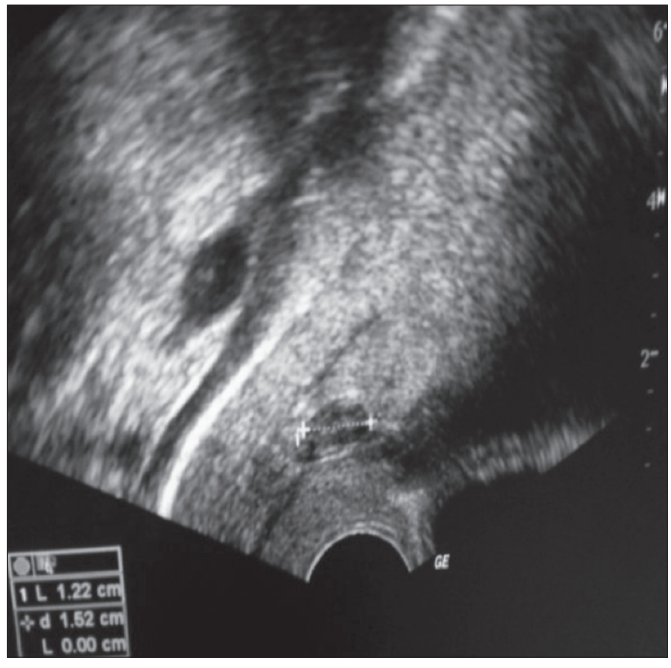

Figure 2. After vaginal aspiration

However, after the completion of the treatment, scar pregnancy still had positive fetal heart rate. Therefore, using a needle thorough vaginal route under ultrasound guidance, amniotic cavity was reached and amniotic fluid was aspirated followed by the injection of 1mg/kg methotrexate. Fetal cardiac activity was found to be negative with the ultrasound made on the same day of the procedure. During the following ten days, cesarean scar pregnancy got smaller and then lost (Figure 2). Later, the patient had dilatation and curettage (D/C) under general anesthesia in order to evacuate the intrauterine pregnancy, also. Patient was discharged after the D/C without any problem.

Conclusion: Although heterotopic pregnancies are rare, it's coexistence with cesarean scar pregnancy is even rarer. Therefore, during ultrasonography in early pregnancy, the demonstration of an intrauterine pregnancy should not be enough for the clinician and adnexal regions, cervical canal and cesarean scar regions should also be carefully evaluated. Unfortunately, the management of these cases still depend on the few case reports in the literature.

Keywords: Heterotopic pregnancy, cesarean scar pregnancy, ectopic pregnancy.

[OP-193]

Dermoid cyst of the round ligament misdiagnosed as inguinal hernia

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Introduction: Dermoid cysts are germ cell tumors composed of multiple cell types derived from one or more of the 3 germ layers. They are encountered commonly in the gonads (29%). By far, the most common gonadal location is the ovary, although they also occur somewhat less frequently in the testes. Here we aim to present a case of dermoid cyst located in the round ligament in a patient with an initial diagnosis of inguinal hernia, in order to point to this rare entity and remind as a choice in differential diagnosis.

Case Report: A 49-year old woman presented with a main complaint of menorrhagia every 20 days, lasting 10 days during which she had to use 4-5 baby diapers every day. Also soft, immobile swelling at right inguinal canal since childhood, which was not mobile by abdominal pressure. Pelvic examination revealed that uterus size was of 16-weeks of pregnancy. Transvaginal ultrasonography showed a mass lesion (12x9cm) with cystic and solid images at the uterine fundus. Computerized tomography reported that the right inguinal canal seemed wider with a cystic lesion of 66x47 mm diameter. An initial clinical diagnosis of myoma and right inguinal hernia was made and she underwent a laparotomy. At the operation, uterus was as large as 18-20 weeks of gestation and there was a 2 cm cyst at the left ovary while the right ovary seemed normal appropriately for the patient's age. Total abdominal hysterectomy and bilateral salpyngooforectomy (TAH+BSO) was performed. After the TAH+BSO, exploration of right inguinal canal revealed a cystic mass about 8 cm diameter seperated from the cord structures. Cyst was completely excised (Figure 1). When the cyst was opened, foul smelling,

Figure 1. Intraoperative appearance while opening the inguinal canal for exploration of the mass

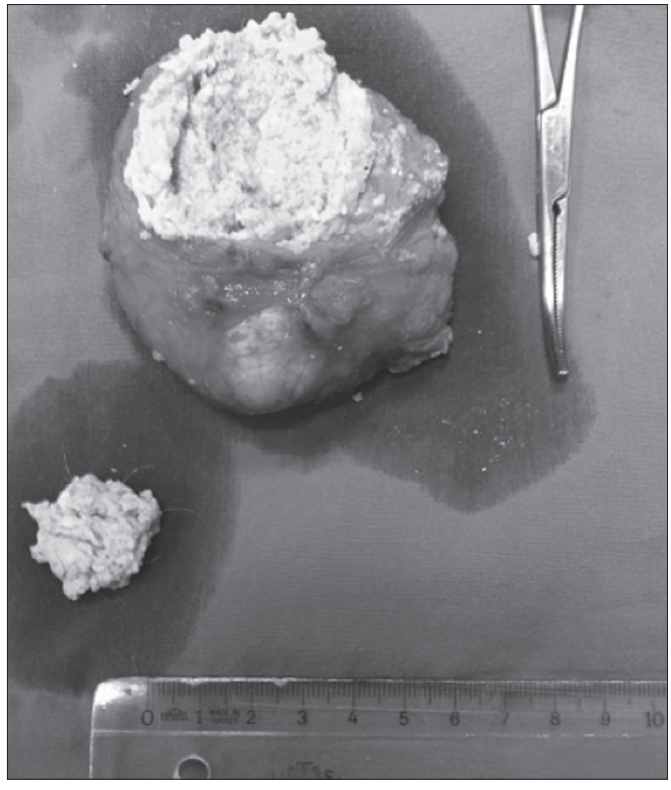

Figure 2. Gross appearance of the excised mass

dark yellow muddy paste like material along with white hairs came out (Figure 2). The TAH+BSO material and inguinal cyst sent for histopathologic examination. Patient was discharged after 2 days of uneventful postoperative care. Histopathology of the inguinal canal mass excision was reported as 'dermoid cyst'.

Discussion: Hernia is the most common cause of inguinal swelling. Other common reasons include undescended testes, lipoma or hydrocele of spermatid cord. Some other rare causes include preperitoneal lipoma, haemorrhage into internal oblique muscle, round ligament angioma, pedunculated uterine fibromyoma, and thrombophlebitis. Dermoid cyst as a cause of inguinal swelling is quite rare. Search of medical databases using key words 'dermoid cyst and inguinal mass', revealed six case reports so far. Diagnosis is often mistaken clinically as irreducible inguinal hernia. The cyst may sometimes lead to compression of adjacent organs causing urinary retention and bowel obstruction. The possibility of malignant degeneration exists especially in women with dermoid cysts arising from round ligament. Tumoral markers like alpha-phetoprotein and beta-chorionic gonadotropin are helpful to monitor treatment and recurrence. In conclusion, occurance of this in inguinal region is rare and imposes diagnostic challenge. Despite being a rare cause, proper suspicion should make dermoid cyst kept in mind and surgical excision is the treatment of choice.

Keywords: Dermoid cyst, inguinal, hernia

[OP-194]

An extremely rare case of vaginal agenesis, uterus unicornis, haematocolpos, mental retardation, bilateral tarsal syndactyly and camptodactyly; possible fraser syndrome/ablepheron macrostomia syndrome, a case from Pristina, Kosovo

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Introduction: Vaginal agenesis is a rare entity, commonly associated with congenital malformations of different organ systems. Here we aim to report a case with vaginal agenesis, dilated urethra, uterine anomaly, disorders such as mental retardation and syndactyly. We dealed with this case at an official volunteer period in Pristina, Kosovo.

Case Report: A 23-year-old female presented to outpatient with the complaint of lower abdominal pain. She didn't have menarche so far, her height was 140 cm, weight was 39 kg, was mentally retarded, seeking parent's help during daily life. Her hearing was impaired. At the physical examination, multiple congenital anomalies were detected such as microblepharon, bilateral deficient right ear helix, deviated nasal septum to right, high arched palate, camptodactyly at both hands and bilateral syndactyly of third and fourth tarsal bones. Complete vaginal agenesis with dilated urethral orifice was detected (Figures 1a,b). Pelvic ultrasonography showed 10x12.5 cm cystic lesion at the midline adjacent to another more translucent mass located at the lower left side which was 7x5 cm (Figure 2). She suffered continuous urinary incontinence. There was no family history of congenital anomalies. Tanner staging for breast was stage 3; pubic hair stage 2. After detailed councelling of the parents, she underwent a laparotomy. After midline incision, pelvis was explored, uterus was malformed and unicornuate with a rudimentery horn, haematocolpos was present at the unicorn. Ovaries were normal. There was double ureter at the right side. In consideration of her mental retardation and lack of expectation of her future reproductive ability, detailed discussion was made with the parents, and with their written consent, total hysterectomy was performed (Figure 2b). After the hysterectomy, urethral orifice was explored using 5-cm camera of diagnostic hysteroscopy. Both uteral openings were located at the posterior side of the orifice 1-1.5 cm. inside close to the inlet. When intraoperatively consulted to urologist, his advice was not to do any urological intervention at the current session and reevaluate the patient under elective circum-

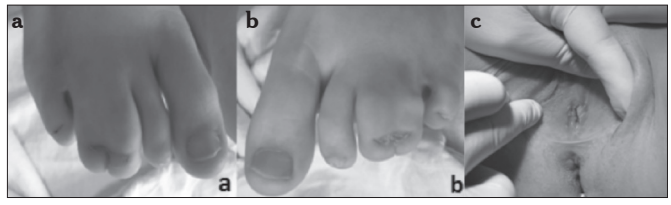

Figure 1. a-c. a-b; right and left feet with syndactyly beween 3 and 4 tarsals 1c; appearance of perineum; complete vaginal agenesis and dilated urethra resembling a normal vaginal orifice

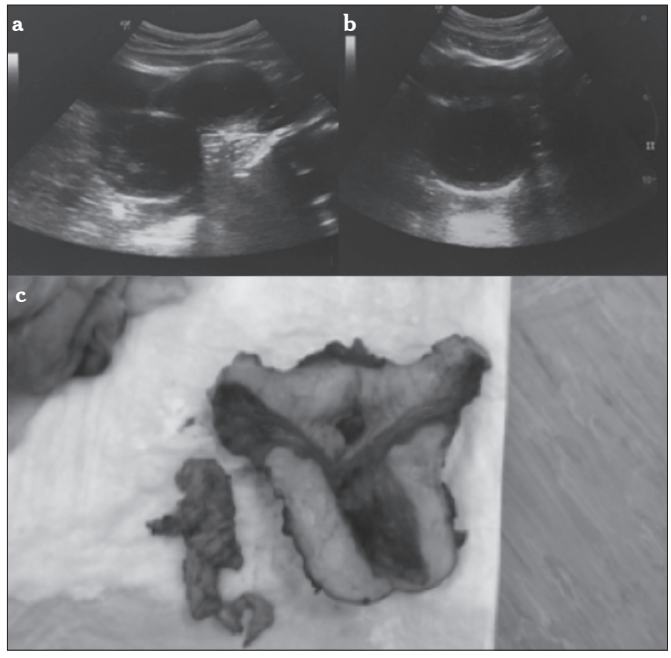

Figure 2. a-c. a and b; ultrasonographic appearance of the masses, 2c hysterectomy material

stances. The operation ended, patient was discharged after 2 days of uneventful postoperative care.

Discussion: This was a very demonstrative case regarding the association between genital malformations and other organ systems. Individually this case was very interesting showing many features of extremely rare syndromes such as Fraser Syndrome and ablepharon macrostomia syndrome (AMS). An intensive search including medical databases as well as genetic and rare disorders databases revealed these two disorders as the closest suspected entities.

AMS is an X-linked disorder, abnormal features include abnormal ears, fishlike mouth, absence of lanugo, redundant skin, vertical shortening of all eyelids, syndactyly or the flexed fingers (camptodactyly) and urogenital anomalies. Fraser syndrome is autosomal recessive, contains cryptophthalmia, nose and external ear anomalies, skeletal defects, syndactyly, renal agenesis, large clitoris and labia majora, mental retardation and vaginal atresia. It is hard to make the definitive diagnosis before the results of the genetic testing. Comprehensive thinking while dealing with patients with a genital anomalies may provide proper diagnosis of underlying genetical disorder which may play a key role to identify additional cases.

Keywords: Agenesis, unicornus, mental retardation, syndactyly

[OP-195]

Unsuccessful outcome of selective embolisation in a patient with haematoma after myomectomy

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Introduction: Uterine fibroids are the most common reproductive tract tumoral lesions and one of the most common organic causes of abnormal uterine bleeding. Uterine artery embolization is one of the fertility-sparing options of the nonsurgical treatment of fibroids. However there is limited or no data regarding the use of selective arteriel embolization in the cases of hematoma formation after myomectomies. Here we report a case of hematoma after excision of multiple myomas, in which non surgical approach was attempted by embolizing the vasculature as the cause of permanent hematoma formation.

Case Report: A 38 years old patient, gravida 1 and parity 1 admitted to outpatient clinic with the complaint of menorrhagia and lower abdominal pain. Physical examination revealed that the uterine size was 14 weeks of pregnancy, without any pathology detected at the adnexial regions. Ultrasonography showed uterus was filled up with multiple fibroids of various sizes. She desired a myomectomy if possible in order to keep her uterus for future reproductive Objectives. After her informed consent taken, she underwent laparotomic myomectomy. The operation was uneventful, ended by excision of the 6 fibroids and moderate controlled bleeding. Two days after the operation she experienced vajinal bleeding and ultrasonography revealed a 8x9 cm mass inside the uterus reflecting a hematoma at the location of the largest excised myoma. Her bleeding continued for 1 week, the size of the hematoma remained almost the same. She underwent selective angiography for the uterine artery in order to visualize the bleeding site. The angiography revealed a pack of chaotic vascularization and this pack was eliminated at the same session. After a week of follow-up at the clinic she was discharged after the vaginal bleeding no longer present. After 1 month at follow-up visit, ultrasonography showed the hematoma was at the same size with the beginning. After 3 months she admitted to the emergency department with abnormal heavily vaginal bleeding, and ultrasonography revealed that the dimensions of the hematoma were enlarged to 13x12 cm instead of shrinking. After detailed counselling, patient decided hysterectomy procedure as a definite solution and total abdominal hysterectomy was performed (Figure 2).

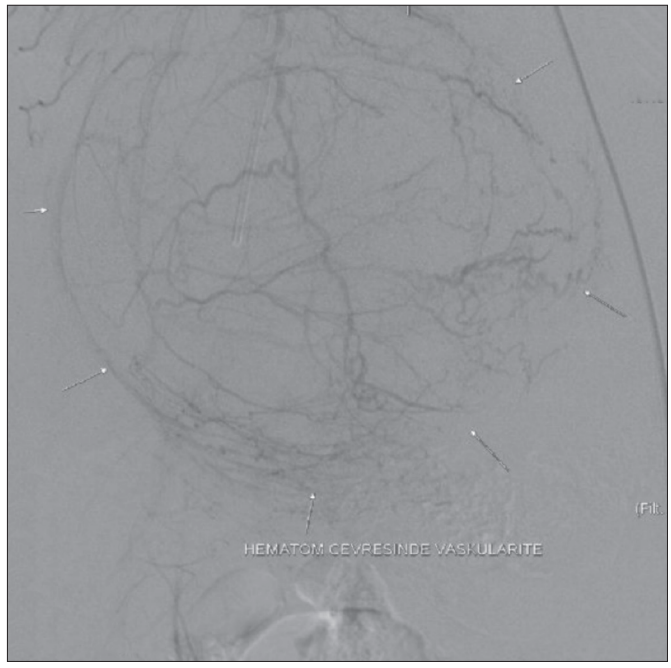

Figure 1. Angiographic appearance of chaotic vascularization at the site of myomectomy

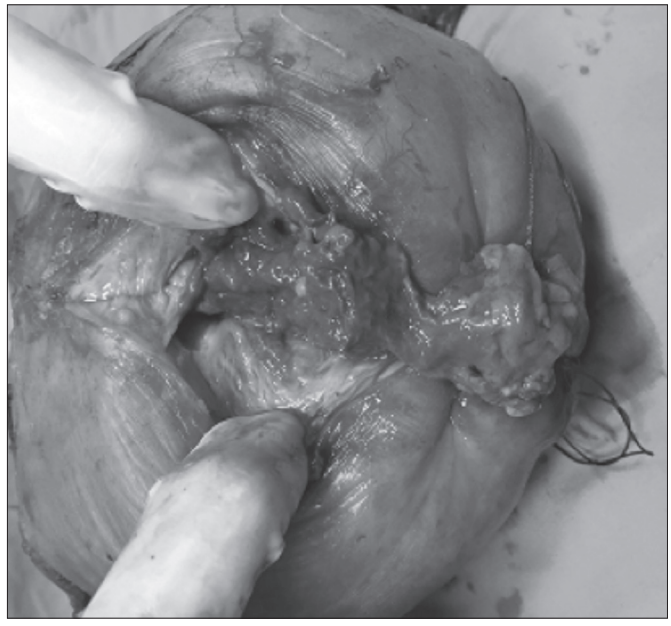

Figure 2. Hysterectomy material; muddy appearance of previously accumulation of blood

Discussion: Minimal invazive procedures such as selective embolization have been showed to be effective in the hemorhagies at the postpartum period or at the non surgical therapy of the fibroids. While searching the literature, there was no spesific case which presented a case that embolization was used to eliminate hematoma formaiton after myomectomy. These minimally invasive procedures may be appropriate treatment choice in the well-selected cases and patient should be well informed about the failure rates.

Keywords: Myomectomy, haematoma, selective embolization

[OP-196]

Two novel mutations in the FRAS1 gene in Fraser Syndrome: Two case reports

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Objective: We aimed in the present study to discuss the clinical and molecular findings of two cases with Fraser Syndrome in parallel with the literature and to present the literature with two novel mutations that had not been defined in FRAS1 gene.

Case 1: A 32-year-old patient (Gravida 6, Parity 5, Abortion 0 and Living Children 1) in the 31st week of her pregnancy in line with the date of her last menstrual period was transferred to our hospital from an external centre with the diagnosis of severe oligohydramnios and intrauterine growth retardation. The patient was taken into caesarean section with the indications of previous caesarean section and breech presentation following the onset of labour pain. One male newborn of 920 gr and 31 cm with an APGAR (Activity, Pulse, Grimace, Appearance, Respiration) score of ½ was delivered by caesarean section through breech presentation. The newborn passed away due to respiratory failure at the 30th post-natal minute. The post-mortem examination were observed bilateral cryptophthalmos, low hairline, depressed nasal root, nasal hypoplasia, low ears, conchal malformation, microstomia, narrow thorax, cutaneous-type syndactyly in left hand, and umbilical hernia (Figure 1A). The karyotype analysis resulted in 46,XY. The case was diagnosed with the Fraser Syndrome on the basis of clinical findings. Blood samples were collected from the parents after the birth for prospective gene mutation studies. DNA was obtained from blood samples by standard procedures. All 75 protein-encoding exons and splice sites of the FRAS1 gene were sequenced using next generation sequencing method on Illumina Miseq platform. Both results were reported a heterozygote premature stop codon mutation c.7777C>T (p.Q2593X) in exon 54 of FRAS 1 gene (Figure 1).

Case 2: A 28-year-old patient (Gravida 7, Parity 6, Abortion 0 and Living children 2) in the 40th week of her pregnancy in line with the date of her last menstrual period applied to our hospital upon the onset of her labour pain. The patient had not been subject to antenatal follow-up before and her ultrasound could not observed the fetal heartbeat and presented severe oligohydramnios. The patient vaginally gave birth to a male newborn of 3700 gr and 51 cm with an Apgar score of 0/0. The post-natal post-mortem examination of the newborn were observed unilateral incomplete cryptophthalmos, low and dysmorphic ears, cleft lip and palate, cutaneous tip syndactyly in fingers and toes, bilateral cryptorchidism, and imperforate anus. The case was diagnosed with the Fraser Syndrome on the basis of clinical findings. Blood samples were collected from the parents for gene mutation studies.The results of the gene mutation study were reported as heterozygote missense mutation c.9821G>C (p.R3274P) in exon 64 of FRAS1 gene for both parents.

Conclusion: Fraser Syndrome is a rare autosomal recessive hereditary disease characterized by cryptophthalmos, cutaneous-type syndactyly, laryngeal and genitourinary system defects, and chraniofacial dimorphisms. Mutations in FRAS1, FREM2 and GRIP1 genes causes this syndrome. We believe that the two cases we present here will contribute to the literature by extending the spectrum of the mutations causing the Fraser Syndrome.

Keywords: Cryptophthalmos, FRAS1 gene mutation, Fraser Syndrome, Syndactyly

Figure 1. Result of the FRAS1 gene sequencing encompassing the c.7777C>T (exon 54). The single nucleotide substitution in the FRAS1 gene is observed in the middle column in sample. At the top of the figure, the location of the sequenced region was indicated according to the genome reference consortium. The original sequence, codons and corresponding amino acids are shown at the bottom of the figure

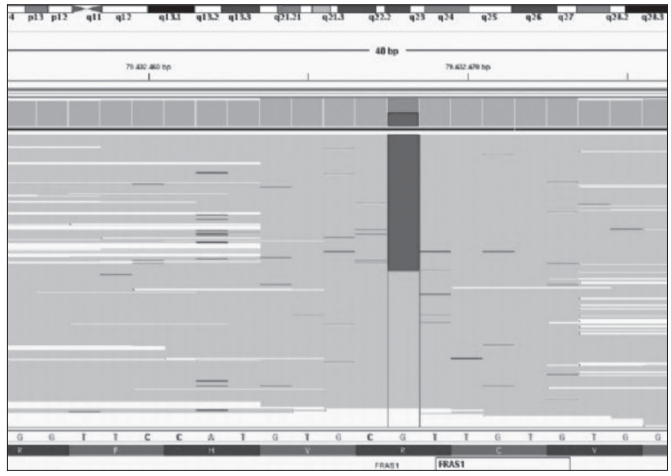

Figure 2. Result of the FRAS1 gene sequencing encompassing the c.9821G>C (exon 64). The single nucleotide substitution in the FRAS1 gene is observed in the middle column in sample. At the top of the figure, the location of the sequenced region was indicated according to the genome reference consortium. The original sequence, codons and corresponding amino acids are shown at the bottom of the figure

[OP-197]

The effect of dexpanthenol on ischemia/reperfusion-induced ovarian injury: biochemical and histopathologic evaluation

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Objective: The aim of this study to evaluate the effect of dexpanthenol (Dxp) on the histopathology and biochemical parameters in experimentally induced ovarian ischemia/reperfusion injury in a rat model and to compare the effect of two different doses of dexpanthenol.

Material and Methods: A total of 40 female rats were randomly divided into 5 experimental groups; group 1: sham operation, group 2: 3-h ischemia, group 3,4 and 5: 3-h ischemia, 3-h reperfusion, group 4 and 5: 30 min before reperfusion, dexpanthenol was administered intraperitoneally at a dose of 300 mg/kg to group 4 and 500 mg/kg to group 5. Bilateral ovaries were removed for histopathologic and biochemical analysis. The ovarian ischemia/ reperfusion injury was evaluated by calculating total antioxidant status (TAS), total oxidant status (TOS) and oxidative stres index (OSI), tissue malondialdehyde (MDA), glutation peroxidase(GSH-Px) and catalase(CAT). Tissue damage of ovarian tissue was scored by histopathological examination.

Results: The TOS and OSI were higher in Groups 2 and 3 compared with Group 1 ($p<0,05$). TOS and OSI values were significantly lower in group 5 compared with group 2 and 3 ($p<0,05$) and TOS value was lower in group 4 compared with group 3 ($p<0,05$).In addition, OSI value was significantly lower in group 5 compared with group 4 ($p<0,05$). MDA levels in the control and dexpanthenol 500 mg/kg group were significantly lower than in groups 3 ($p<0.05$). Catalase and GSH-Px activities were significantly higher in the control group than in groups 2 and 3 ($p< 0.05$). The catalase levels were higher in group 5 than in group 2 ($p=0,00$) and glutation peroxidase levels were higher in group 5 than in group 3 ($p=0,00$). Elevated tissue damage scores were determined in all groups when compared to the sham group, but treatment with Dxp of the rats with different doses before reperfusion ameliorated the tissue damage scores.

Conclusion: Our study results showed that Dxp reduced ovarian ischemia-reperfusion injury in experimantal rat ovarian torsion model. Antioxidant and anti-inflammatory treatment modalities like dexpanthenol might be used to preserve ovarian ischemia-reperfusion injury.

Keywords: Ovarian torsion, Ischemia/reperfusion, oxidative stres, dexpanthenol

[OP-198]

Comparison of low molecular weight heparin and rapamycine in an experimental uterine horn adhesion model

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Objective: Previous many studies showed that low molecular weight heparin(LMWH) has preventive effect on the postoperative formation of adhesion. Also some study findings proved that immunosupressive agent rapamycine has decreasing effect on the adhesion formation.

In this experimental study, we aimed to investigate the preventive effect of these agents separetely and in combination.

Material and Methods: Our study included 40 Wistar-Albino rats weighing between 200-250 g. The control and three study groups were formed including 10 rats. In sterile condition we performed 3 cm midline incision on the rats abdomen under anesthesia. On the antimesenteric surface of both uterine horns 8-10 unipolar electrocoterization were applied. Antimesenteric surface were sutured to abdominal side wall with 4.0 polydioxanone (PDS). Group 1 (n=10) Control group: No therapy was applied after surgery in this group and incision was closed according to surgical rules. Group 2 (n=10) LMWH group: In this group, after forming uterine adhesion model, Clexane 50 U/kg which is LMWH was applied intraperitoneally for 14 days. Group 3 (n=10) Rapamycine group: After forming experimental uterine horn adhesion model, 0.8 mg/kg rapamycine was applied orally with feeding tube for 14 days. Group 4 (n=10)Combined group: After formation of rat uterine adhesion model,50U/kg LMWH was applied intraperitoneally for 14 days and this group also received 0.8mg/kg rapamycine orally with the feeding tube during the same duration.

The animals were sacrificed by lethal dose pentobarbital 14 days after surgery and a midline laparatomy was carried out and abdominal cavity was inspected for the presence of adhesion.

Results: Macroscopic and microscopic evaluation of adhesion severity showed that no significant difference statistically between LMWH, Rapamycine and combined groups with the control group ($p>0.05$). The comparison of three study groups for the same results revealed that no significant difference was found statistically ($p>0.05$). When adhesion extention and total adhesion scores of the study groups compared with the control group, low scores were obtained statis-

Table 1. Total adhesion scores for each group

Group	Mean/(s.d.)	Min –Max (Median)
Control	4.15/(1.08)a	2.00-7.00 (4.00)
LWMH	3.50/(1.63)b	2.00-7.00 (3.00)
Rapamycine	2.85/(0.87)b	2.00-4.00 (3.00)
Combined	3.16/(1.68)b	2.00-8.00 (3.00)
a and b: Shows the differences between the groups p = 0.002		

tically (p<0.05).Three study groups when compared with each other for the same results we did not find statistical difference (p>0.05). Total adhesion scores are presented in Table 1.

Conclusion: LMWH and rapamycin prevent total adhesion similarly, however, this effect is considerable on the extent of adhesion rather than the severity of adhesion. Combination of LMWH and rapamycin did not show synergistic effect on adhesion severity but adhesion extention and total adhesion scores of the study groups compared with the control group, low scores were obtained statistically. Consequently, we believe that the continuation of experimental and clinical studies of both agents with different adjuvants in combination, may be increase their adhesion prevention effect.

Keywords: Low molecular weight heparin, peritoneal adhesion, rapamycine

[OP-199]

Bevacizumab exposure in pregnant rats might provide a model to study human preeclampsia

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Objective: The aim of this study is to develop a mouse model preeclampsia by administering an angiogenesis inhibitor bevacizumab.

Material and Methods: Sixteen pregnant rats were randomly allocated to intraperitoneal injection of 10 mg/kg bevacizumab or 0.1 cc intraperitoneal serum physiologic on the 4th and 8th days of gestation. Blood pressure, body weight, and proteinuria were measured at both on day 0 (D0) and day 20 (D20). Blood samples were collected at D20 for analysis including vascular endothelial growth factor (VEGF) and soluble Fms-like tyrosine kinase 1 (sFlt-1) levels. On the same day, mice were euthanized; placentas and pups weighted, and angiogenesis markers as well as micro vessel density were evaluated by the immunohistochemical methods. Micro vessel density was determined by counting the number of CD31 and CD105 (Fig. 1A). Semi-quantitative evaluation of VEGF (Fig. 1B) and sFlt-1 (Fig. 1C) expressions was performed by measuring histological score. Glomerular histopathological changes (endothelial swelling (ES), capillary loop occlusion (CO) and protein droplets PD) were graded (Fig. 1D).

Results: VEGF was significantly lower in bevacizumab exposed pregnant rats than their controls (p=0.038) (Table 1). In contrast, sFlt-1 concentration was found to be significantly higher in bevacizumab exposed pregnant rats when compared with the control group (p=0.015). Dealing with biochemical parameters, there were no differences in AST, ALT, BUN, creatinine and proteinuria levels between the groups (p>0.05). Although blood pressures on D0 were similar between bevacizumab exposed and non-exposed groups (p>0.05), both systolic (p=0.050) and diastolic (p=0.046) blood pressures were found to be significantly higher in bevacizumab exposed pregnant rats than the control group. Regarding systolic and diastolic blood pressures, and proteinuria levels measured on D0 and D20, the Wilcoxon Signed Rank Test did not reveal a statistically significant difference on two occasions in the control group. Similarly, maternal blood pressures of bevacizumab treated pregnant rats were found to be comparable between D0 and D20. However, bevacizumab treated pregnant rats on D20 revealed a statistically significant increase in proteinuria when compared to D0 (p=0.026) (Table 1). Maternal weight (D0 and D20) and weight gain were comparable between the bevacizumab treated and the control groups (p>0.05) (Table 2). Similarly, there were no significant differences in the number of pups per litter and the mean fetal weight between the groups (p>0.05). Immunohistochemical evaluation of placental sections revealed that micro vessel density was comparable between bevacizumab exposed pregnant rats and control group (p>0.05). Moreover, glomerular endotheliosis scores that were evaluated histopathologically were found to be similar between the groups (p>0.05). Although there was no significant difference in placental VEGF (p>0.05), placental sFlt-1 expression was significantly higher in bevacizumab exposed pregnant rats than the controls (p=0.050) (Table 2).

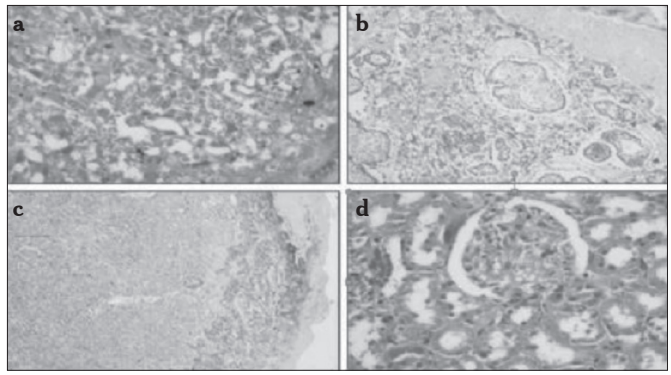

Figure 1. a-d. (a) CD105 immunostaining, 400 x magnification; (b) VEGF immunostaining, 100 x magnification; (c) sFlt-1 immunostaining, 40 x magnification; (d) Protein droplets, image of renal glomerular endotheliosis

Conclusion: The promising results of this trial show that bevacizumab exposure in pregnant rats might provide a model to study human preeclampsia.

Keywords: Bevacizumab, preeclampsia model, rats

[OP-200]

Does vitamin D prevent ischemia-reperfusion injury of ovary on a rat model?

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Vitamin D is an antioxidant and the deficiency is associated with the increase in oxidative stress and the apoptosis process. It has anti-inflammatory, anti-fibrotic and anti-apoptotic actions in several tissues. Treatment with Vitamin D3 was shown to have protective effects on ischemia/reperfusion injury of lung, muscle and kidneys however its probable effects on ovary is unknown. From this point of view we aimed to investigate probable acute effects of Vitamin D on ischemia-reperfusion model in rat ovary. A group of 30 Wistar-Albino rats were divided into five groups. Group 1: sham group(n:6); underwent laparotomy only and the ovaries were removed. Group 2: ischemia group (n:6); 3-h ischemia followed by excision of the ovaries. Group 3: ischemia-reperfusion group (n:6); 3-h ischemia and 3-h reperfusion and the ovaries were removed. Group 4: Vitamin D-ischemia group (n=6); Vitamin D was administered 30 minutes prior to the 3-h of ischemia and the ovaries were excised at the end of ischemia. Group 5: Vitamin D-ischemia-reperfusion group (n=6); Vitamin D was administered 30 minutes prior to the 3-h of ischemia and 3-h reperfusion then the ovaries were removed at the end of reperfusion. The ovaries excised in each groups were also underwent to biochemical analysis. MDA (malondialdehyde), SOD (superoxide dismutase), NO (nitric oxide), TAS (total antioxidant score), TOS (total oxidant score) were analyzed as biochemical parameters. We determined a tendency to the decrease of MDA levels in Group 5 compared to the Group 3 in fact it was insignificant. In similar NO and TAS levels was also observed lower in Group 5 (Vitamin D-ischemia-reperfusion group) compared to the Group 3(ischemia-reperfusion group). When we evaluated TOS value between Group 2(ischemia group) and Group 4(Vitamin D-ischemia group), Group 4 had low levels than group 2. However, there were no statistically differences between these groups according to the biochemical analysis.

Efficacy of Vitamin D on ischemia-reperfusion injury was evaluated in various studies such as myocardial injury, renal ischemia/reperfusion injury and hepatic ischemia/reperfusion injury. To the best of our knowledge, it is the first study that evaluate the effectiveness of Vitamin D on ovarian ischemia/reperfusion injury. As a result Vitamin D seems an effective molecule for protection of ischemia-reperfusion injury of ovary. We determined minimally improvement on ischemia/reperfusion injury of the ovary with Vitamin D administration but it is not statistically significant which might be related to the long elimination and action time of Vitamin D. Its effects and doses should be investigated in women with ovarian torsion by further studies.

Keywords: Vitamin D, ischemia, reperfusion, ovary

[OP-201]

Dose dependent protective effects of vardenafil on ischemia–reperfusion injury with biochemical and histopathologic evaluation in rat ovary

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Objective: The Objective of the study is to evaluate the effect of vardenafil on the histopathology and biochemical parameters in reducing damage in experimental ovarian ischemia and ischemia/reperfusion injury in a rat model and to compare the effect of two different doses of vardenafil.

Material and Methods: Forty-two rats with experimental ovarian torsion. Group-I: sham; Group-II: ovarian ischemia; Group-III: 2 hours of ischemia followed by a 2-hour reperfusion. Group-IV: two hours before the sham operation, rats received 1 mg/kg vardenafil; Group V and VI: A 2-hour period of ovarian ischemia was applied, in which rats were treated with intraperitoneal vardenafil 1 and 2 mg/kg dose, after 1.5 hours of ovarian ischemia. After 2 hours of reperfusion, the ovaries on the right side were removed for examination. The ovarian

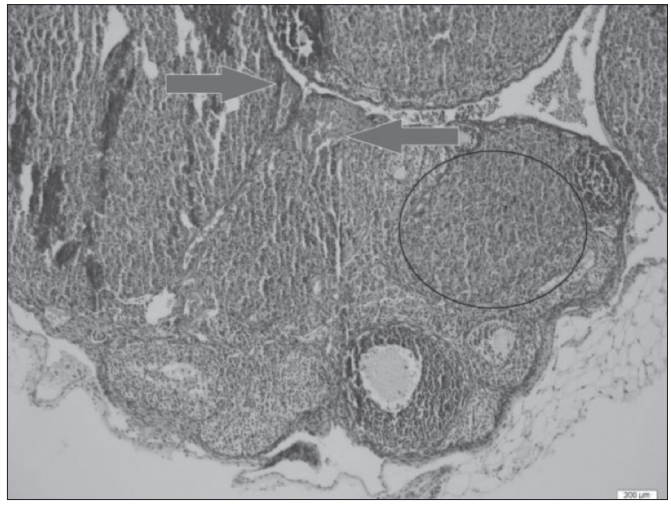

Figure 1. Group 5 (I/R + 1 mg/kg ip. vardenafil) minimal vascular congestion (purple arrows) and minimal hemorrhage (inside the black circle)

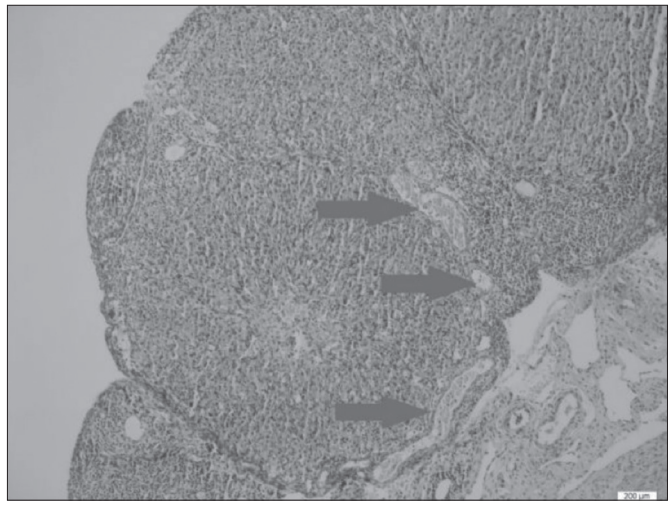

Figure 2. Group 6 (I/R+ 2 mg/kg ip. vardenafil) minimal vascular congestion (purple arrows)

Table 1. Comparison of the biochemical results for groups

	Group 1 Mean±SD	Group 2 Mean±SD	Group 3 Mean±SD Group 4 Mean±SD Group 5 Mean±SD Group 6 Mean±SD	Group 4 Mean±SD	Group 5 Mean±SD	Group 6 Mean±SD
[1]TAS (mmol Trolox equivalent/L)	0.45±0.18	0.45±0.33	0.26±0.31	0.48±0.18	0.22±0.17	0.15±0.19
[2]TOS (μmol H2O2 Equiv./L)	10.13±2.54	34.17±12.77	21.86±10.73	10.53±2.98	22.85±8.5	14.78±6.75
[3]OSI (Arbitrary unit)	2.60±1.45	13.17±10.7	26.88±31.75	2.25±0.61	27.69±31.9	29.6±32.42

[1]TAS: Total Antioxidant Status; [2]TOS: Total Oksidant Status; [3]OSI: Oxidative Stress Index Values demonstrated as Mean± Standart Deviation

ischemia/reperfusion injury was evaluated by calculating total antioxidant status, total oxidant status and oxidative stress index; and histopathologic examination of all ovarian rat tissue.

Results: The histologic findings in vardenafil treatment groups were statistically significant decreased edema and follicle degeneration, with vascular congestion, hemorrhage and follicle degeneration being dose-dependent (Figure 1, 2). There were no statistically significant changes in the biochemical parameters (Table 1).

Conclusion: According to histopathological examination, low and high dose vardenafil is effective in attenuating ischemia–reperfusion induced ovary injury.

Keywords: Vardenafil, ovarian torsion, ischemia-reperfusion, rat model

[OP-202]

Investigation of effects of vitamin D and mannitol in rat ovary induced by experimental ischemia/reperfusion injury

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Objective: This study was designed to investigate the effects of vitamin D and mannitol in experimental rat ovarian torsion model.

Material and Methods: Forty female Wistar albino rats were randomly classified as group 1: (sham), group 2:(detorsion), group 3: (detorsion+mannitol), group 4: (detorsion+vitamin D) and group 5: (detorsion+mannitol+vitamin D) (for each group n=8). All groups were subjected to bilateral adnexal torsion for 2 h except for group 1. Bilateral adnexal detorsion was performed in all groups except for group1. The groups 3 and 5 intraperitoneally received the injection of mannitol in a dose of 0.3 mg/kg 30 min before detorsion. Also, the groups 4 and 5 orally received vitamin D in a dose of 500 IU/kg/day for two weeks before torsion. TOS, TAS, OSI and PCNA levels were analyzed.

Results: According to the histopathological analyses, ovarian tissue damage and follicle counting were evaluated. TOS, OSI and histopathologic scores values of ovarian tissue were significantly lower in group 5 than groups 2, 3 and 4 ($p<0.05$). PCNA level was significantly higher in group 5 than groups 2, 3 and 4 ($p<0.05$). A strong negative correlation was found between OSI and PCNA in groups 2, 3, 4 and 5 ($r=-0.92$, $p=0.01$; $r=-0.98$, $p<0.0001$; $r=-0.98$, $p<0.0001$ and $r=-0.96$, $p=0.0002$, respectively). Numbers of primordial follicles in group 5 ($p<0.001$) and primary follicles in group 4 ($p<0.001$) were significantly higher when compared to group 2.

Conclusion: Based on results of this study, it could be suggested that combination treatment of mannitol with vitamin D is more effective in reversing tissue damage induced by ischemia-reperfusion (I/R) injury in ovarian torsion model than administration of only an agent.

Keywords: Ovarian torsion, ischemia reperfusion injury, mannitol, vitamin D, pcna

[OP-203]

Investigation of the protective effects of amifostine against damage of hysterosalpingography on ovarian tissue: a rat model

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Objective: Amifostine is an antioxidant, cytoprotective and radioprotective agent. In this study we aimed to investigate the protective effects of amifostine against short and long term damages of hysterosalpingography (HSG) on ovarian tissue of rats.

Material and Methods: This prospective, single-blind study was conducted with 40 Winstar albino female rats. The rats were divided randomly into four groups as follows:

Grup 1 (control, n=10): Abdominal opening and closing.

Grup 2 (radiation, n=10): Abdominal opening and closing after X-ray application.

Grup 3 (HSG, n=10): abdominal opening and closing after 0.1 mL intrahornual iohexol (Omnipaque® 350 mg/100 mL) and X-ray application.

Grup 4 (amifostine, n=10): Abdominal opening, 200 mg/kg amifostine intraperitoneal administration, 30 minutes after this procedure intrahornual 0.1 mL iohexol (Omnipaque® 350 mg/100 mL) and X-ray application and then abdominal closing.

Whole body radiation was applied three times with two minutes intervals, to all rats, in group 2, 3 and 4. Total radiation doses were 15-20 miliRad. For short term investigation, five rats were operated (oophorectomy) three hours after radiation and for long term investigation five rats were operated one month after radiation in each of groups. Histological, immunohistochemical and proliferative cell nucleus antigen (PCNA) analysis were done on one ovarian tissue and the remaining ovarian tissue were used for analysis of tissue malondialdehyde (MDA), total antioxidant level (TAL), total antioxidant capacity (TAC), nitric oxide (NO) and tumor necrosis factor-alpha (TNFa). Antimullerian hormone (AMH) levels were studied with samples of intracardiac blood.

Results: All parameters of oxidative stress (MDA, TAL, NO) did not show significant difference among groups for short term; but for long term, significant increament was observed in radiation and HSG groups ($p<0.05$). In amifostine group, oxidative stress parameters were significantly low observed. There was no significant difference among groups for levels of AMH. While germinal epithelial degeneration and apoptosis were significantly increased in radiation and HSG groups; PCNA immunoreactivity was similar among all groups. And also, germinal epithelial degeneration and apoptosis were significantly low in amifostine group.

Conclusion: Application of amifostine is an effective method to protect ovarian tissue against oxidative damage of radiation and HSG.

Keywords: Amifostine, histerosalpingography, oxidative damage, ovary

[OP-204]

Effects of quercetin and Surgicel® on preventing adhesions after gynecological surgery: A rat uterine horn model

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Objective: To investigate the effects of quercetin and Surgicel® on preventing adhesions after gynecological surgery.

Material and Methods: A double-blind, randomized controlled experimental study was designed. Forty female Wistar Hannover rats were divided into five groups (control, sham operated, quercetin, Surgicel, and quercetin+Surgicel). After anesthesia induction, 1.5–2-cm injuries were made to each uterine horn by cauterization. The control group received no medications except those used for the surgical procedure. The sham group received laparotomy only. The quercetin group received 15 mg/kg quercetin in addition to undergoing the standard surgical procedure, and the injuries in the surgical group were covered with a single, 1-cm2 layer of Surgicel. After placement, the Surgicel was moistened with two drops of sterile saline solution for adherence to the tubal surfaces. The quercetin+Surgicel group re-

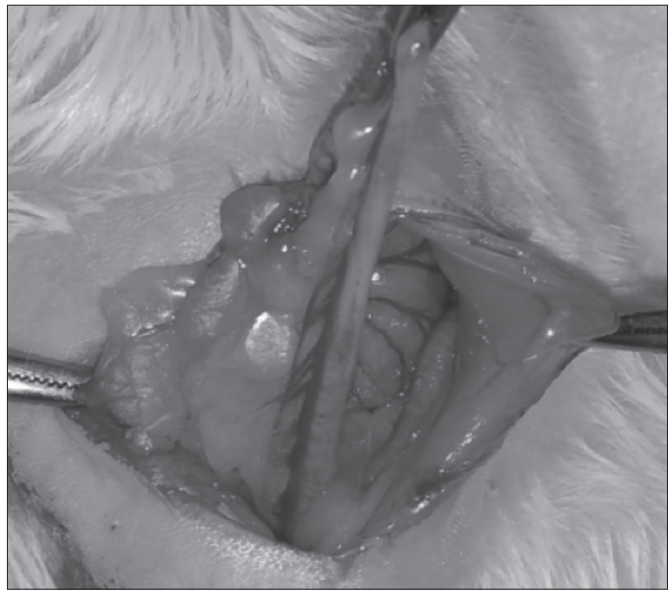

Figure 1. After cauterization white tissue discolaration on the peritoneal side of the rat tuba

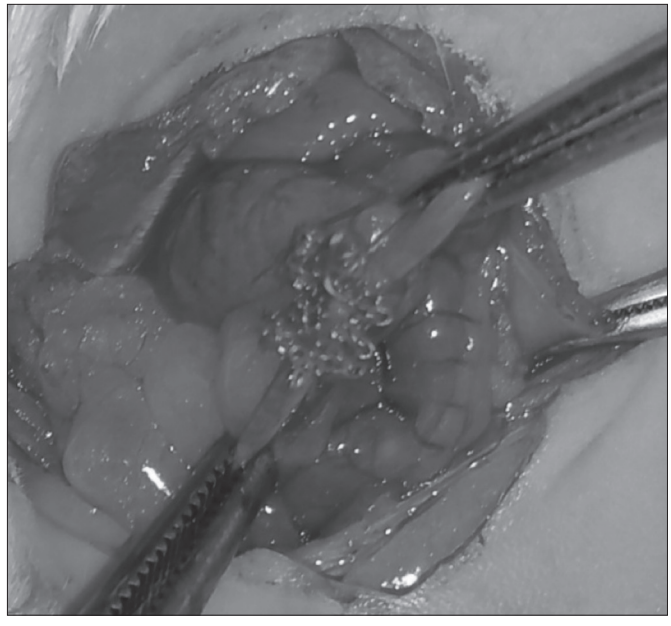

Figure 2. Application of Surgicel on to the traumatized rat tuba

Table 1. Macroscopic Adhesion Score

group	sham	control	querc	surgicel	Surc+ querc
Number of uterine horns	16	14	16	16	16
Macroscopic adhesion score					
Extend	0 (0)	3.71±0.48 (3-4)	1 (1)	2.25±0.7 (1-3)	1.13±0.35 (1-2)
Severity	0 (0)	3.43±0.53 (3-4)	1.25± 0.46 (1-2)	1.25±0.46 (1-2)	1 (1)
Degree	0 (0)	4 (4)	1.38±0.51 (1-2)	2.13±0.83 (1-3)	0.75±0.46 (0-1)
Total	0 (0)	11.14±0.69 (10-12)	3.63±0.51 (3-4)	5.5±0.53 (5-6)	2.8±0.64 (2-4)
Histopathological score					
Inflammation	0 (0)	2.71±0.48 (2-3)	1 (1)	2±0.53 (1-3)	1.38±0.51 (1-2)
Fibrosis	0 (0)	3 (3)	1 (1)	2±0.53 (1-3)	1.38±0.51 (1-2)

Table 2.

	Extend	Severity	Degree	Total	Inflammation	Fibrosis
Sham/control	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Sham/querc	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Sham/surgicel	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Sham/surg+ querc	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Control/querc	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Control/surg	<0.001	<0.001	<0.001	<0.001	0.002	<0.001
Control/ surg+ querc	001 <0.	<0.001	<0.001	<0.001	<0.001	<0.001
Querc/surg	<0.001	0.1	0.06	<0.001	<0.001	<0.001
Querc/ surg+ querc	0.03	0.01	0.002	0.002	0.006	0.006
Surg/ surg+ querc	<0.001	0.04	<0.001	<0.001	0.006	0.006

ceived both 15 mg/kg quercetin and a single, 1-cm2 layer of Surgicel. Adhesions were scored 14 days after the first surgical procedure.

Results: The extent, severity, degree, total adhesion, inflammation, and fibrosis scores of the control group were significantly higher than the those of the quercetin, Surgicel, and quercetin+Surgicel groups. There was no significant difference between the Surgicel and quercetin groups for degree, but all other parameters were significantly higher in the Surgicel group than in the quercetin group. The quercetin+Surgicel group had lower adhesion scores than did the quercetin group.

Conclusion: Quercetin, Surgicel, and quercetin+Surgicel treatment may be useful for preventing pelvic adhesions.

Keywords: Focal adhesions, inflammation, pelvic pain, quercetin, surgicel

[OP-205]

Effect of garlic oil on ovarian reserve and evaluation of serum antioxidant paramaters, a rat ovarian torsion model

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Objective: To investigate the effect of garlic oil on ovarian reserve and serum oxidative stress markers in rat ovarian torsion model.

Material and Methods: A double-blind, randomized controlled experimental study was designed in a university research hospital.24 female Wistar Hannover rats were divided into three groups(sham operated, detorsion and detorsion+garlic oil group). 1)The sham operated group received no medications except those used for the only surgical procedure. 2) detorsion-only group received bilateral adnexal torsion (3-hour ischemia), and then after 3-hour torsion period, detorsion (reperfusion) was performed; and 3) detorsion-garlic oil group received 5 mg/kg garlic oil intraperitoneally 2 hours before the same surgery as the detorsion-only group. Independently from the surgeries, preoperative and postoperative 1-mL blood samples were taken from the right jugular vein of each rat.

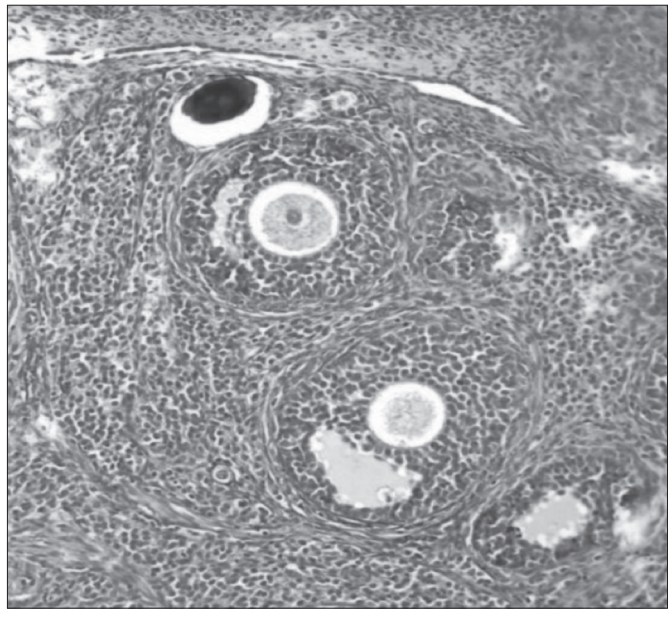

Figure 1. Small and Large Antral Follicules

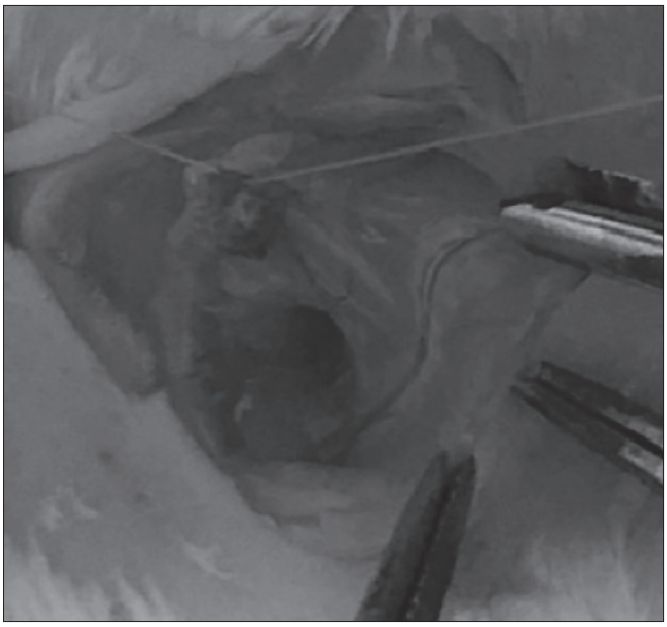

Figure 2. Torsion model

Table 1. Comparison of histopathological results of the study groups

	Control mean±SD (Range)	Detorsion mean±SD (Range)	Garlic+Detorsion mean±SD (Range)	P value
Follicle count				
Primordial	9.88±0.64 (9-11)	4.76±0.7 (4-6)	8.76±0.7 (8-10)	<0.001
Preantral	7.26±1.59 (4-9)	3.13±0.64 (2-4)	6.26±0.89 (5-7)	<0.001
Small antral	5±0.53 (4-6)	3.26±0.7 (2-4)	5.13±0.64 (4-6)	<0.001
Large antral	4.25±0.89 (3-6)	2±0.53 (1-3)	3±0.53 (2-4)	<0.001
Corpus luteum	8±0.76 (7-9)	10±0.53 (9-11)	8.76±0.7 (8-10)	0.001
Atretic	1±0.53 (0-2)	1.38±0.51 (1-2)	1.6±0.53 (1-2)	0.187
Damage score				
Degeneration	0.13±0.35 (0-1)	2.88±0.36 (2-3)	0.88±0.36 (0-1)	<0.001
Congestion	0 (0)	2.76±0.47 (2-3)	0.88±0.36 (0-1)	<0.001
Hemorrhage	1±0.53 (0-2)	2.76±0.47 (2-3)	1.76±0.47 (1-2)	<0.001
Inflammation	1±0.53 (0-2)	2.88±0.36 (2-3)	0.88±0.36 (0-1)	<0.001
Total damage	2.13±0.83 (1-4)	11.12±0.83 (10-12)	4.6±0.76 (3-5)	<0.001

There was statistically significant difference between study groups for primordial, preantral, small antral, large antral and corpus luteum counts between study groups. There was also statistically significant difference for damage scores such as degeneration, congestion, hemorrhage, inflammation ant total damage scores between study groups (Table 1).

Table 2. Correlation analysis of the blood samples alterations and histopatological analysis of the study groups

	AMH alteration/r	TAS alteration/r	TOS alteration/r	OSI alteration/r	XO alteration/r
Primordial	-0.22	-0.49*	0.36	0.15	0.36
Preantral	-0.43*	-0.63**	0.19	0.36	0.1
Small antral	-0.25	-0.56**	0.09	0.36	-0.08
Large antral	-0.35	-0.73**	0.17	0.25	0.38
Corpus luteum	-0.21	0.5*	-0.31	-0.36	-0.14
Atretic	-0.29	0.15	-0.59**	-0.29	-0.34
Degeneration	0.38	0.58**	-0.24	-0.21	-0.26
Congestion	0.15	0.57**	-0.39	-0.26	-0.32
Hemorrhage	0.84	0.53**	-0.4	-0.15	-0.24
Inflammation	0.32	0.49*	-0.29	-0.33	0.1
Total damage	0.24	0.62**	-0.39	-0.25	-0.3

There was significant correlation between AMH alteration and postoperative preantral follicle count ($p<0.05$). There was statistically significant correlation between primordial, preantral, small antral, large antral, corpus luteum counts, degeneration, congestion, hemorrhage, inflammation, total damage scores and TAS alteration levels. However there was no significant correlation between OSI, XO alterations and histopathological results(Table 2) TAS: Total Antioxidant Status TOS:Total Oxidant Status XO: Xanthine oxidase OSI:Oxidative Stress Index

Results: There was significant correlation between AMH alteration and postoperative preantral follicle count ($p<0.05$). There was statistically significant correlation between primordial, preantral, small antral, large antral, corpus luteum counts, degeneration, congestion, hemorrhage, inflammation, total damage scores and TAS alteration levels. However there was no significant correlation between OSI, XO alterations and histopathological results

Conclusion: Garlic oil treatment after detorsion decreases the reperfusion injury by reducing the oxidative stress markers that could harm the ovarian reserve.

Keywords: Garlic oil, ovarian reserve, oxidative stress, AMH

[OP-206]

Dose dependent protective effect of Tempol in experimental ovarian ischemia-reperfusion injury

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Objective: The aim of this study is to investigate the antioxidant effects of two different dose of Tempol on ovarian ischemia-reperfusion injury in rats.

Study design: Forty female Wistar albino rats were randomly divided into five groups. Group1: sham, group 2: ischemia, group 3: ischemia-reperfusion, group 4: ischemia-reperfusion + Tempol 30 mg/kg i.p, group 5: ischemia-reperfusion + Tempol 50 mg/kg i.p. At the end of the experiment, samples were obtained from blood and over tissues for biochemical and histopathologic analysis.

Results: The MDA levels were significantly lower in group 4 (p=0.000) and group 5 (p=0.000) than in group 3. Catalase levels were significantly lower in the group 3 than group 4 (p=0.000) and group 5 (p=0.000). The glutation peroxidase levels were lower in group 3 than in group 4 (p=0.000) and in group 5 (p=0.014). OSI value was significantly higher in group 2 (p=0.002) and group 3 (p=0.000) compared with group 1. Edema was significantly increased in the group 3 (p=0.001) compared with group 1. Vascular congestion was significantly decreased in the group 5 compared with group 3 (p=0.017). The results of the histopathologic parameters were significantly decreased in the group 5 (p=0.005) when compared with group 3.

Conclusion: These results suggest that Tempol may be use to reduce the ovarian ischemia reperfusion injury.

Keywords: Ovarian ischemia-reperfusion, Tempol, oxidative stress

[OP-207]

Comparison of the effects of bilateral total salpingectomy versus bilateral proximal tubal occlusion on ovarian histopathology of rats: an experimental study

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Objective: Either salpingectomy or tubal occlusion are the surgical procedures applied for hydrosalphinx before in vitro fertilization. But it is yet not clear whether these interventions have any detrimental effect on ovarian tissue. In this study we compared the effects of bilateral total salpingectomy versus bilateral proximal tubal occlusion on ovarian tissue of rats.

Material and Methods: This study was conducted with 21 Wistar albino female rats during estrus phase. The rats were divided into three groups as follows: Group1 (n=7): Laparatomy and one month after laparatomy bilateral oophorectomy were performed. Group2 (n=7):

Table 1. The macroscopic cyst diameters of all groups (mm)

Rats	G2 right ovary	G2 left ovary	G3 right ovary	G3 left ovary	G1 right ovary	G1 left ovary
1	13	6	4	0	0	0
2	15	15	0	0	0	0
3	13	12	0	0	0	0
4	0	6	0	0	0	0
5	11	12	0	5	0	0
6	0	4	0	0	0	0
7	18	20	0	0	0	0

Firstly bilateral total salpingectomy (BTS) was performed by clamping and suturation and one month after BTS, bilateral oophorectomy was performed. Group3 (n=7): Firstly bilateral proximal tubal occlusion (BTO) was performed by bipolar cautery and one month after BTO, bilateral oophorectomy was performed. Before oophorectomy macroscopic evaluation of ovaries for determining cystic formation was done in all groups. All cystic formations bigger than 4mm were measured and recorded. The ovaries were fixed with 10% formalin and paraffin embedded. After staining with hematoxylin eosin, ovarian reserve was evaluated according to Mazaud et al. method. After TUNEL staining, apoptosis was evaluated by H score. In statistical assessment, the groups were compared with Kruskal-Wallis variance analysis and in binary comparison Mann-Whitney U test was used. P value <0.05 was accepted as statistically significant.

Results: In Group1, no cystic formation was observed. In group2, cystic formation was observed in all rats (100%). While bilateral cystic formations were occured in five rats, unilateral cystic formations were occured in two rats. The mean cyst diameters were 10mm and 10.7mm in right and left ovary respectively. In group 3, unilateral cystic formations were occured only in two rats. And their diameters were 4 mm and 5 mm. Secondary follicle numbers were significantly low in group2 compared to that in group 1 and group3. Fibrosis and apoptosis scores of group2 were significanly higher than those of group1 and group3.

Conclusion: Our results showed that BTS is strongly inducing ovarian cyst formation and significantly decreasing ovarian reserve in rats compared to BTO.

Keywords: Ovarian histopathology, proximal tubal occlusion, rat, total salpingectomy

[OP-208]

Oocyte quality and follicle atresia are changed in a mouse model of fragile X primary ovarian insufficiency

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Objective: Recent work in our laboratories has led to the first time recognition that mitochondrial abnormalities are present in the granulosa cells and oocytes of heterozygous mouse carriers of the Fragile X Premutation (FXPM). It should be noted here that the study is a state of the art study in this field shedding light on ultrastructural details about this subject.

Material and Methods: We performed histomorphometric analysis of follicle growth and atresia of FXPM ovaries compared to wild-type (WT) controls. We stimulated animals with Pregnant mare's Serum Gonadotrophin (PMSG), followed by human chorionic gonadotropin (hCG) 48 hours later, and eggs were collected from oviducts 12 hours post-hCG.

Results: Counting the mitotic and pyknotic (dying) nuclei in the granulosa cells of primary and small preantral follicles revealed a significant difference in the mutants. The standard criteria for primary follicle atresia is one pyknotic nucleus per central follicle cross-section; for small preantral follicles, three per central cross-section. While In each follicle class, pyknotic nuclei were elevated in FXPM compared to wild-type, 90% of FXPM follicles exceeded this threshold. Because FXPM ovaries contain approximately normal numbers of follicles of all classes, this means that pyknotic nuclei are elevated in follicles that are growing (and not actually atretic). This effect of FXPM upon follicle growth is consistent with the prior finding that FXPM ovulatory follicles contain fewer granulosa cells than WT. Finally, our data on mitochondrial dysfunction in growing FXPM follicles led us to hypothesize that the response to gonadotrophic stimulation might be altered in FXPM animals. Mean numbers of ovulated intact and degenerate eggs were significantly higher in heterozygous FXPM animals than in WT controls.

Conclusion: These unique data suggest that while mitochondrial dysfunction favors follicle under-growth under physiological conditions, that stimulation can overcome the compromised growth in our mouse model. Even so, FXPM animals still produce more than double the number of degenerate eggs as seen in WT controls under the same conditions. Overall, these data increase our understanding of the impact of FXPM upon follicle development and the production of mature, fertilization-competent eggs in the context of gonadotrophic stimulation.

Keywords: Oocyte quality, follicle atresia, fragyle x

[OP-209]

Effects of endocannabinoids on the isolated rabbit myometrium: An experimental invitro study

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Objective: It was shown that cannabinoids act on uterine smooth muscle "myometrium" contractility. However, the role and effect of the endocannabinoid system in myometrial function are still controversial. The aim of this study is to evaluate the effects of endocannabinoids on myometrial contractility and to investigate through which cannabinoid receptors these effects are created in isolated rabbit myometrium.

Material and Methods: Myometrial strips (3x15 mm longitudinal) obtained from albino female rabbits (2.5-3 kg adult rabbits; n=20) were mounted in organ baths containing modified Krebs solution and were tested for changes in isometric tension. Electrical field stimulation (EFS) parameters were selected as 60 V with 1 ms duration in 10-s trains at 8-16 Hz frequencies at 2-min intervals to obtain isometric contractions. Then, anandamide (endogenous cannabinoid agonist; 10-7 – 3x10-5 M; n=7), WİN 55,212-2 (cannabinoid receptor agonist; 10-8 – 3x10-5 M; n=6), ACEA (selective CB1 agonist; 10-7 – 3x10-5 M; n=7), JWH015 (selective CB2 agonist; 10-8 – 3x10-5 M; n=6) were separately administered on EFS-mediated myometrial contractions. Additionally, the drugs mentioned above were evaluated on EFS-mediated contractions in the presence of indomethacin (10-5 M; n=7, n=4, n=4, n=4). To explore the contributions of the receptors, the effects of these drugs were appraised in the presence of AM 251 (CB1 receptor antagonist; 10-6 M; n=5, n=5, n=4), and AM 630 (CB2 receptor antagonist; 10-6 M; n=5, n=5, n=7). The direct effects of these drugs on myometrial smooth muscle were conducted in carbachol (cholinergic agonist)-induced contracted myometrial strips.

Results: Anandamide, WIN 55,212-2, ACEA and JWH015 produced a concentration-dependent reduction on EFS-evoked contractions ($p<0.05$). The inhibitor effects of anandamide, WIN 55,212-2, JWHO15 and ACEA did not change in the presence of AM 251 and AM 630 in separately and together as well ($p>0.05$). The inhibitor effects of anandamide and WIN 55,212-2 increased significantly in the presence of indomethacin ($p<0.05$). There were no relaxant effects of all these drugs on the tissues contracted with carbachol ($p>0.05$).

Conclusion: Endocannabinoids exerted an inhibitory effect on EFS-evoked myometrial isometric contractions and they probably exhibited this effect via presynaptic interaction. This inhibitory effect of endocannabinoids suggests it may play a physiologic role in regulation of myometrial activity and further studies to evaluate the signaling pathways involved may help to define this role.

Keywords: Cannabinoid receptors, electrical field stimulation, endocannabinoids, rabbit myometrium

[OP-210]

The effects of Etanercept and Cabergoline on endometriotic implant, uterus and over in rat endometriosis model

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Objective: Endometriosis is defined as the endometrium tissue to unconventionally exist and function out of the uterus. In this study, we evaluated the effects of Etanercept, Cabergoline and Etanercept + Cabergoline treatments on endometrial implants, endometrium and ovaries by using the rat endometriosis model.

Material and Methods: In this study, 12 to 16 weeks old female Wistar Albino rats were examined in 5 groups: group 1 (n:10):Control; group 2 (n:9):Sham; group 3 (n:9): Cabergoline(C); group 4 (n:10):Etanercept (E); group 5 (n:10):Etanercept + Cabergoline(E+C). Firstly, laparotomy was performed to create endometriotic implant. Four weeks after the endometrial implants were created, status of the implants and serum AMH (Anti Mullerian Hormone) levels were assessed during the second operation. Following two weeks of treatment process, the third operation was performed; status of the implants and serum AMH levels were reassessed; biopsies were performed from the implants, ovaries and uteri. TNF-α (Tumor Necrosis Factor Alpha) and VEGF (Vascular Endothelial Growth Factor) levels in endometrial implants, ovarian and endometrial biopsies, CD146/ PDGFRβ (endometrial stem cell) levels in endometrium and implant tissue and DDX-4 (ovarian stem cell), levels in ovarian tissue were evaluated by immunohistochemical (IHC) staining. CD2, CD3, CD4, CD5, CD8a, CD25 and CD45 protein levels were searched by Flow cytometry.

Results: Endometriosis model was successfully created in all the rats. Implant volumes were decreased more in group 4 and group 5 than group 3. Histopathological scoring was decreased the most in group 5 ($p<0.05$). Antral follicle count in group 4 ($p<0.05$) and AMH levels in group 5 ($p<0.05$) had been found to be more than other groups. AMH levels during third operation were decreased compared to second operation AMH levels in Sham group ($p>0.05$) and Sham group showed less antral follicle count compared to other groups. TNF- α IHC staining of endometrium and ovarian tissues in group 4 and 5 were decreased in intensity ($p<0.05$). TNF- α and VEGF IHC staining of implants in all groups were decreased in intensity, except Sham group ($p<0.05$). CD146/PDGFRβ IHC staining of implants in Sham group were found to be more intense compared to other groups ($p<0.05$). Flow cytometric analysis showed that the increase in CD5 (Matur T cell indicator) and CD25 (Regulatuar T cell indicator) in group 5.

Conclusion: Etanercept and Etanercept+Cabergoline treatments were found to be effective in rat model of endometrial implants, without any negative impact on ovarian reserves. E+ C issued, along with an increase in Treg function was observed.This suggests that the protective effect of Treg cells against the possibility of autoimmune events to genital organs. Sham group showed less antral follicle count compared to other groups. TNF- α, VEGF and CD146/PDGFRβ decrease in implants were determined to be proportional to the decrease in implant volumes.

This study was financially supported by Kocaeli University Scientific Research Project

Keywords: Endometriosis, cabergoline, etanercept, stem cell, rat model

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[OP-211]

Detrimental effect of cystectomy on ovarian reserve: endometrioma vs. other types of ovarian cysts, time to reconsider surgery for endometriomas

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Objective: We aimed to assess the predictors of unintended ovarian tissue removal during endometrioma or other types of ovarian cyst excision.

Material and Methods: Totally 100 women diagnosed to have endometrioma (n=50) or other types (n=50) of ovarian cysts underwent laparoscopic surgery. In all cases cystectomy was performed and age of patient, cyst diameter, cauterization, histopthologically confirmed fibrosis, inflammation, number of removed follicles with the developing stage of follicles were all recorded.

Results: Comparison of groups in terms of age, cyst diameter, number of removed total follicles, primordial follicles, primary follicles, secondary and the graffian follicles indicated significant differences with regard to number of removed total follicles, primordial follicles, primary follicles, secondary and the graffian follicles ($p<0.05$). In spearman correlation analyses number of follicles removed was significantly correlated with the diameter, inflammation, fibrosis, hemorrhagia, cauterization, cyst type. Groups were also compared in terms of degree of inflammation, fibrosis, hemorrhagia and cauterization requirement which were found to be significantly higher in endometrioma group.

Conclusion: Our data showed that cyst diameter and the type of cyst were significant confounders for the number of unintended follicle removal during cystectomy, however contrary to the general expectations, it seems that cyst other than endometriomas lead to higher number of unintended follicle removal during cystectomy.

Keywords: Endometrioma, ovarian reserve, laparoscopy, cystectomy

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[OP-212]

Risk of occult uterus malignomas while using power morcellation

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Objective: Due to the development of MIC electromechanical morcellation (EMM) became a routine technic. Despite the important advantages of morcellation it may be associated with dissemination of uterine tissue throughout the peritoneal cavity and spread of an occult malignoma, which can result in cancer upstaging. Our aim is to estimate the frequency of the appearance of unexpected malignomas in morcellation and its clinical impacts in a patient cohort in our department.

Material and Methods: This retrospective study included patients treated from 2008-2015. We identified women who underwent laparoscopically or robotically myomectomy or hysterectomy because of symptomatic myomas and use of EMM.

Results: We analyzed 421 patients who had LSH (50.2%), TLH (18.1%) or myomectomy (31.7%). Unexpected malignancy was detected in 3 of 421patients, which represents 0.71%. In all three cases the malignancy was proved to be sarcoma. We treated the patients with a re-operation for completion of staging. Up to now no intrabdominal

recurrence appeared (follow up 22,35 respectively 60 months).

Conclusion: There is an inherent risk of spread out of occult malignoma in EMM. In clinical management detailed patients' information about risk of EMM and alternatives are mandatory. Risk factors for presence of occult malignancies have to be considered. In high-risk patients, EMM should be avoided. In future morcellation bags should be used routinely. The outcome in case of morcellated malignomas keeps unclear.

Keywords: Risk of power morcellation, uterus malignomas, spread of occult malignoma, MIC myomectomy or hysterectomy, morcellation bags

[OP-213]

The review of our office hysteroscopy experiencies in perspective ''see and treat'' concept

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Objective: Office hysteroscopy is a minimal invasive equipment which particularly used for diagnosis and treatment of abnormal uterine bleeding (AUB), functional and anatomic evaluation of uterine anomalies and evaluation of sub fertile patients. Our aim was to review of our office hysteroscopy experiences in perspective '' see and treat'' concept for five years period.

Material and Metdods: This retrospective data analysis was conducted in a university hospital between August 2011 and February 2016. We performed office hysteroscopy without speculum and tenaculum after vaginoscopy under sedation in 144 patients with various indications in the age range 19-77. Our office hysteroscopy has 3.6 mm outer sheath with working channel(Karl Storz, Tutlingen, Germany). 74 patients for AUB, 20 patients for lost Intra-uterine device(IUD)s, 32 patients for subfertility, 12 patients for recurrent pregnancy loss(RPL) and 6 patients for uterine synechia were included in this data analysis. In case of cavitary pathologies, they were operated as possible with scissors, forceps and bipolar hook. Data were extracted from medical records and analyzed according to its indications.

Results: Endometrial polyp was the most frequent pathology of patients with subferlity following AUB. The most common cavitary anomaly was uterine septum. Cavitary pathologies were treated 100% in the lost IUDs group, 87.5% in AUB, 88.9% in subfertil women, 100% in uterine synechia, and 100% in RPL. In four patients(2.8%), operative hsyteroscopy was needed to treat some pathologies such as submucous fibroid larger than 2 cm and huge endometrial polip. Office hysteroscopy was also successfully performed in six virgin women without injury to hymen. Hysteroscopy was performed to 44 patients for subfertility and RPL. Of 44 patients who had hysterescopy, 22 patients had a pregnancy after operations and 20 had a live babies to home.

Table 1. Distribution of pathologies and successfully treatment ratio according to main indications of office hysteroscopy

Main indications	Visible pathologies (n, %)	Polip (n, %)	Succesfully management ratio (n, %)
AUB (n=74)	48 (64.8%)	19 (25.7%)	42 (87.5%)
Subfertility (n=32)	18 (56.2%)	10 (31.2%)	16 (88.9%)
Lost-IUDs (n=20)	6 (30%)	4 (20%)	6 (100%)
RPL (n=12)	5 (41.7%)	3 (25%)	5 (100%)
Uterine synechiae (n=6)	6 (100%)	-	6 (100%)

Conclusion: Office hysteroscopy seemed to effective in both diagnosis and treatment of AUB causes, subfertility and RPL. It should be considered as the first choice method for the evaluation of uterine cavity.

Keywords: Abnormal uterine bleeding, office hysteroscopy, subfertility, treatment

[OP-214]

Neuraltherapy for treatment of endometriosis

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Endometriosis is a chronic inflammatory disease. Although the exact pathophysiology of the disease is unknown, one of the possible causes is believed to be a blockage in the sympathetic nervous system. Several studies reported an induction of plasticity in cerebral cortex and pain pathways and a change in white-grey matter ratios in central pain center. One of the best indicators of this is amplifications observed in neurons. Cytokines and inflammatory markers, which are secreted upon inflammatory process triggered by a blockage in the sympathetic nervous system, as well as tissue deformation and organ perfusion, contribute to formation of both disease and pain. More specifically, these increase levels of dyspareunia, dysmenorrhea and pelvic pain in the patients. Moreover, a blockage in sympathetic nervous system affects the hypothalamic pituitary adrenal axis and leads to its deregulation. Consequent secretion of stress factors increase levels of cortisol, which possess an analgesic effect.

While the therapy we apply for treatment of endometriosis includes regulation of sympathetic nervous system affecting the hormonal axis, neural therapy is a regulation treatment by local anesthetics (procaine-lidocaine).

Objective: Induced endometriosis, chronic pelvic pain and the relief of pain associated with other symptoms indicate the effectiveness of neuraltherapy

Material and Methods: Neuraltherapy to patients who were diagnosed endometriosis and pain associated symptoms was applied.

Clinical findings: In our study, we included 50 volunteer endometriosis patients, whom we followed for one year. We have obtained significant results based on the use of visual analog scale (VAS). Although there were no significant changes in the sizes of the endometria of the patients, the complaints of the patients, such as dyspareunia, dysmenorrhea and pelvic pain were completely declined at all stages. Following the fourth injection, the complaints of patients were dramatically reduced and upon application of seventh- and eighth- injections, complete recovery was achieved. Procaine is a short-term local anesthetic which also exerts anti-inflammatory, analgesic, anti-bacterial, anti-tumoral, neuroprotective and anti-thrombotic effects. If the cause of endometriosis is a hormonal dysfunction Hormonal therapy, which will be held axle (pituitary, celiac ganglion, thyroid, uterovaginal plexus) is the first step of treatment. Here In order to increase

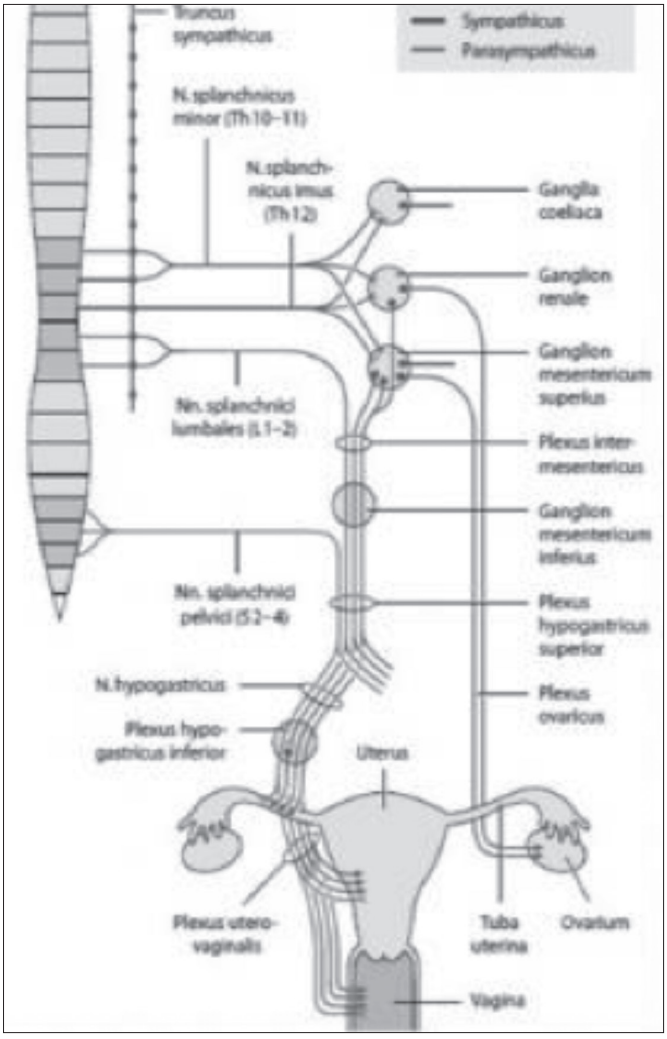

Figure 1. Innervation of the uterus

tissue perfusion and innervation of the pelvic region of all to regulate. with local and segmental treatment scarring in the pelvis in all possible inclusion in the treatment of tissues in the same area again and especially perfusion innervation for it is important.

Results: The cure was achieved in 36 stages, especially 1-2 endometriosis patients, it was observed that 14 patients with stage 3-4 on the pain significantly reduced. Due to pain in neurons with local anesthetics of eliminating the plasticity and sympathetic blockage is prevented from triggering the inflammatory proces Stimulation of sympathetic nervous system has an anti-inflammatory effect in the body. Tissue perfusion is restored and persistence of microcirculation is ensured. Thus, pathophysiological mechanisms leading to endometriosis are removed.

Keywords: Current treatment for endometriosis, local anesthetics, neuraltherapy

[OP-215]

A comparision of skin elevation and fascial elevation in veress needle closed entry method

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Objective: To compare skin elevation and fascial elevation techniques which were used to elevate the anterior abdominal wall at the stage of Veress needle (VN) entry.

Material and Methods: In this prospective randomised clinical study, a total of 67 patients were recruited into 2 groups based on the technique used for VN entry during laparoscopy. In Group 1 (n=33), the skin was held and elevated by a towel clip on each para-incisional area. In Group 2 (n=34), the dissection was made as far as the rectus muscle fascia which was then held and elevated with Kocher forceps. The 2 groups were compared regarding the operative outcomes.

Results: The skin to fascia distance was determined as 48.8 mm in Group 1 and 8.2 mm in Group 2 (p=0.001). The time which elapsed until intraperitoneal entry of the VN in Groups 1 and 2 was 112 and 159 seconds respectively (p=0.01). The mean number of attempts to place the VN intraperitoneally was 1.9 and 1.2 in Groups 1 and 2 respectively (p=0.001). The 2 groups were statistically similar regarding the complications.

Conclusion: Compared to skin elevation, fascial elevation during the VN entry resulted in a decrease in the number of attempts to place the VN intraperitoneally while increasing the time until the intraperitoneal entry of the VN. As a hybrid of the open entry and VN closed entry techniques, combining the advantages of both, the use of this new technique can be recommended in routine gynecological laparoscopic procedures.

Keywords: Fascial elevation, laparoscopy, veress needle entry

[OP-218]

Isolated tubal torsion: Succesful preoperative diagnosis with ultrasound and management with laparoscopy of four cases

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Introduction: Isolated tubal torsion is a very rare entity which reported as 1 in 1.5 million women. Because of non-spesific clinical findings like lower abdominal pain, nausea, vomiting and fever it is a challenging preoperative differential diagnosis and should be in mind while approaching to the patient with abdominal pain. This report presents four cases of isolated tubal torsion and their succesful preoperative diagnosis with ultrasound imaging and management with laparoscopic approach at a tertiary health center within 2 years.

Case Reports: Four patients with lower abdominal pain at different intensities diagnosed as tubal torsion with ultrasound imaging. All of the

diagnosises were confirmed with the laparoscopy, but the coexisting risk factors were misdiagnosed at Case 1 and 2 as listed at Table 1. Three of four patients were managed with salpingectomy and detorsion was carried out only at one patient which had further fertility will. None of the patients had postoperative complications and all of them were departured at first 48 hours.

Discussion: The potential risk factors for isolated tubal torsion are tubal pathologies like hydrosalpinx, paratubal cysts or ovarian masses and altered tubal function. But a normal tubal appearance was found mostly at isolated tubal torsion cases. One of four cases had a normal tubal structure, two had paratubal cystes and one had hydrosalpinx which consisting with the literature.

The sonographic feauteres of tubal torsion may vary widely. Preoperative suspicion may rise with an image of elongated, convulated cystic mass, tapering as it nears the uterine cornua. Increased resistance index due to decreased blood flow determined by Doppler ultrasound may also strengthen the suspicion of torsion. But abnormal Doppler findings is not a necessity for the diagnosis of torsion. Identfiying a normal ipsilateral ovary may strongly suggest the tubal torsion. Also torsion itself may be seen as "whirlpool sign" which is the image of tissue turning around itself as shown in Figure 1. This sign should be seen definitely to diagnose patient as torsion and is enough for the diagnosis. There may be also hidrosalpinx image on the distal side of torsion and may be diffuse with the elongation of torsion duration. With use of these criteria and a cautious ultrasound examination performed by an experienced practitioner isolated tubal torsion may be predicted with a high sensitivity as in that report. The importance of correct diagnosis is to make surgery as soon as possible to preserve the adequate circulation as with ovarian torsion.

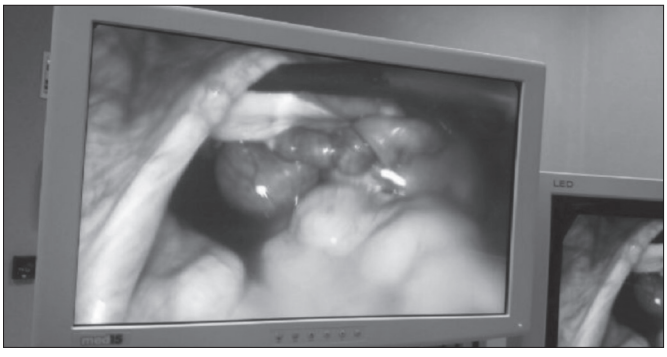

Figure 1. Intraoperative view of the torsion

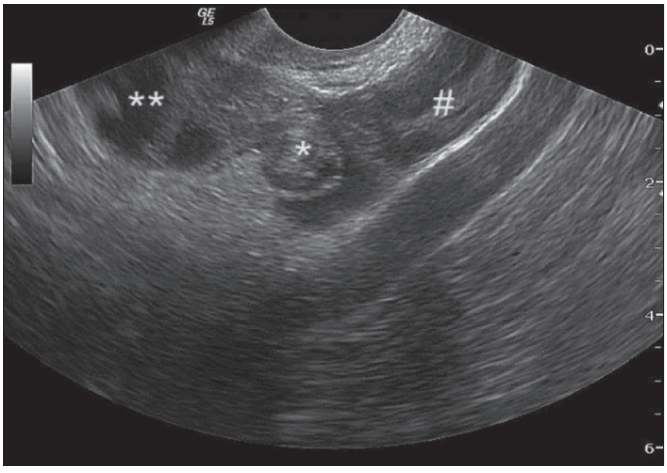

Figure 2. Ultrasound Image
*Whirlpool sign **Hidrosalpinx at the distal side of tubal torsion #Ovarian tissue

Table 1. Summary of the four cases

	Age	Preoperative Diagnosis	Surgery	Postoperative Pathology
Case 1	38	Tubal torsion + Hydrosalpinx	Laparoscopic Detorsion + Paratubal Cyst Excision	Benign Serous Cyst
Case 2	49	Tubal torsion + Paratubal cyst	Laparoscopic Salpingectomy	Hydrosalpinx
Case 3	30	Tubal torsion	Laparoscopic Salpingectomy	Dilated fallopian tube
Case 4	32	Tubal torsion + Paratubal Cyst	Laparoscopic Salpingectomy	Not resulted yet

Preoperative diagnosis, laparoscopic interventions and postoperative pathologic results of the patients

The primary approach to the tubal and ovarian torsions should be laparoscopy and mentioned as reference standart. With advancing accesibility to laparoscopy torsions are mostly treated with that approach. We prefer laparoscopic approach at both ovarian and tubal torsions as in these 4 cases which were succesfully managed with laparoscopy. In conclusion tubal torsion is an emergency state and a true preoperative diagnosis should be acquired immediately. Due to that fact ultrasound criteria for a tubal torsion diagnosis should be evaluated carefully by a experienced practitioner and laparoscopy should be the primary choice of treatment.

Keywords: Isolated tubal torsion, ultrasound, laparoscopy

[OP-219]

Laparoscopic sacrocolpopexy: a single center experience of two years

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Objective: Despite the fact that it is not a life threatening condition, vaginal cuff prolapse appears as a clinical entity that affects dialy activities and impairs life quality in elderly women. Vaginal cuff prolapse is treated with sacrocolpopexy which aims to fixate the anterior and posterior vaginal walls on the sacral promontorium by means of synthetic materials that would act as a bridge. The high success rates of this surgical technique has led to the adoption of laparoscopic approach in its application. Currently, laparoscopic sacrocolpopexy is addressed as a very efficient and reliable method for the treatment of vaginal cuff prolapse. The present study aims to evaluate the two-year-long experience of a tertiary health center

Material and Methods: This is a retrospective review of 8 patients who underwent laparoscopic sacrocolpopexy due to vajinal cuff prolapse between January 2014 and December 2015. The urogenital characteristics of each patient were assessed by vaginal examination and

pelvic organ prolapse quantification system. Moreover, stress test was done after the manual correction of vaginal cuff prolapse. A polypropylene mesh was tailored in the shape of an inverse Y letter before surgery. Data related with operation time, hospital stay, intraoperative blood loss and complications were obtained from medical files. All women were evaluated six months after surgery and they were asked to complete a questionnaire about their satisfaction.

Results: Laparoscopic sacrocolpopexy was completed successfully in each patient. The mean operative time was 135 minutes (range: 120-180 minutes) whereas the mean duration of urethral cateterization was 2 days (range: 1-3 days) and the mean duration of hospital stay was 3 days (range: 2-4 days). No adverse effects related with the use of polypropylene mesh occurred in none of the patients during the early and late postoperative periods. There was no recurrence of pelvic organ prolapse in seven patients (87.5%) while second degree cystocele was noted in the remaining patient (12.5%). As the cystocele was asymptomatic, no treatment was planned. One of the reviewed patients (12.5%) had stres incontinence and another patient (12.5%) had mixed incontinence. Four patients were sexually active and only one of them complained about dyspareunia. The analysis of the questionnaires revealed that all patients were satisfactory about their surgical treatment.

Conclusion: Laparoscopic sacrocolpopexy has become a popular treatment method for vaginal cuff prolapse as it is a minimally invasive technique which allows detailed visualization of pelvic anatomy, provides easy access to all pelvic compartments, and facilitates the installation of vesicovaginal and rectovaginal meshes. Laparoscopic approach helps to avoid many disadvantages of laparotomy including longer hospitalization, relatively late ambulation and complications related with abdominal incision. However, technical difficulties and the requirement for personal skillfulness result in a steep training curve which may limit its use. The findings of the present study indicate that laparoscopic sacrocolpopexy is a feasible method of treatment for vaginal cuff prolapse. The surgeons should be skilled about laparoscopic techniques and they should have enough experience about the pelvic floor disorders that may accompany the vaginal cuff prolapse (i.e., urinary incontinence).

Keywords: Laparoscopic sacrocolpopexy, vaginal cuff prolapse

[OP-220]

Hyperthermic intraperitoneal chemotherapy after secondary cytoreduction in epithelial ovarian cancer: a single-center experience

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Objective: Since the first use of hyperthermic intraperitoneal chemotherapy (HIPEC) on humans in 1980 it has been applied to a variety of malignancies. In recent years surgical cytoreduction followed by HIPEC was introduced as treatment modality in advanced epithelial ovarian cancer (EOC). The objective of this study is to analyze the postoperative complications and toxicity of the cytoreductive surgery (CRS) and HIPEC and the outcome of the patients' in recurrent EOC.

Material and Methods: Retrospective data analysis of 12 patients that underwent CRS and HIPEC in Medipol Mega University Hospital between June 2014 and April 2016 were conducted. Toxicity of HIPEC, postoperative complications and the outcomes of patients were evaluated. The data collected from the electronic patient record system. The decision of the treatment was discussed in tumor board meetings. All patients had cytoreductive surgery for peritoneal carcinomatosis. For patients with serous peritoneal carsinomatosis, cisplatin 100 mg/m2/lt was given, while mitomycin 25 mg/m2/lt was given to patients with mucinous carcinomatosis. These medications were given to the patients by intra-abdominal outflow with a temperature of 42 °C. The duration for HIPEC was 90 minutes for 9 patients and the duration for the remaining 3 was 45 minutes.

Results: The mean age of patients was 61 years (39-66 years). Out of 12 patients, 2 (16%) had mucinous carcinomatosis and the remaining 10 had serous peritoneal carsinomatosis. Maximal debulking surgery (none residual tumor) was performed on 8 patients (66%). The rest of the patients had optimal debulking surgery (visible tumor ‹ 1 cm). Pleural effusion and atelectasis was found in four patients (33%), one patient (8%) had bowel perforation, one (8%) had ileocutanous fistula and two patients (16%) had renal toxicity. In the follow up period (up to 23 months), none of the patients had any recurrence.

Conclusion: The results of this study – done on a relatively small group of patients- showed that CRS and HIPEC is a promising treatment for patients with recurrent EOC. The treatment has an acceptable morbidity and mortality rate with long term survival. Therefore, further studies on larger groups including many other factors such as the experience of the surgeon, the availability of highly intensive care units (ICU), complications, effects on morbidity and long term survival is needed.

Keywords: Cytoreductive surgery, hyperthermic intraperitoneal chemotherapy, peritoneal carcinomatosis, recurrent epithelial ovarian cancer

[OP-221]

Pregnancy in cancer survivors; experience of a University Hospital in Turkey

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Introduction: The aim of this study was to assess the obstetric and neonatal outcomes of the survivors of childhood and adolescence cancer.

Material and Methods: A retrospective analysis of 68 pregnancies with a history of cancer who had antenatal follow up and gave birth between 2000 and 2015 at İstanbul University Cerrahpasa School of Medicine Obstetrics and Gynecology Department. To exclude cancer patients diagnosed during pregnancy, patients who gave birth during the first 10 months after diagnosis were not included in the study group. Clinical data regarding the cancer diagnosis and treatment, obstetric and neonatal outcomes were collected and analysed. Oncologic, obstetric, and pediatric files were screened to retrieve clinical information. Oncologic data included the type of cancer, the date of diagnosis, the type and date of treatment. Obstetric data included spontaneous fetal loss, legal termination of pregnancy, gestational age at diagnosis, obstetric complications, gestational age at delivery, fetal

Table 1. Clinical, obstetric and perinatal outcomes of patients

Age (year, mean±SD)	31.7±5.5
Nulliparity (n, %)	33, 48.5
Birth weight (gram, mean±SD)	3020±717
Birth week (mean±SD)	37.5±2.5
Birth before 37 week (n, %)	8, 12.1
Birth before 34 week (n, %)	6, 8.8
c-section delivery (n, %)	42, 66.6
FGR (n, %)	4, 5.8
Preeclampsia (n, %)	2, 2.9
Gestational diabetes (n, %)	6, 8.8
Termination (n, %)	3, 4.4
Abortion (n, %)	2, 2.9
Stillbirth (n, %)	1, 1.4
Neonatal Intensive Care Unit (n, %)	6, 8.8
Maternal Mortality (n, %)	---

growth restriction and mode of delivery. Pediatric data collected included birth weight, sex, congenital malformations, Apgar score at 1-5 minutes, admission to a neonatal intensive care unit, stillbirth and early neonatal death.

Results: The distribution of cancer types in the study populations are depicted in Table 1. The most frequently encountered tumor types in the cancer survivors were thyroid cancer (26.4%) hematologic malignancies (22.1%), genital malignancies (19.1%) and breast cancer (13.2%).

The clinical characteristics, obstetric and perinatal outcomes of the study populations are depicted in Table 2. The mean maternal age was 31.7±5.5 years, and the İncidence of nulliparity was 48.5%. The mean gestational age at delivery was 37.5±2.5 weeks and mean birth weight 3020±717 gr, preterm delivery rate was 12.1% and the İncidences of delivery less than 34 weeks of were 8.8%. The İncidences of fetal growth restriction, preeclampsia and gestational diabetes were 5.8%, 2.9% and 8.8% respectively in the women with a history of cancer. In our study population did not have early neonatal mortality and congenital anomalies in newborns, and only 1 intrauterine fetal demise was detected at 28 weeks of gestation in breast cancer survivor. The İncidence of cesarean section was 66.6%, the endication was planned repaet cesarean nearly half of them.

Table 2. Distribution of cancer types

Thyroid Cancer 18 26.5 Thyroid Papillary Ca 17 Thyroid Medullary Ca 1	Central nervous system 6 9 Glioblastoma multiforme 2 Anaplastic astrocytoma 1 Cerebellar tm 1 Spinal cord tm 1 Glioma 1
Heamatologic Malignancies 15 22 Hodgkin's lymphoma 7 Nonhodgkin lymphoma 2 Acute leukemia 3 Chronic myeloid leukemia 3	Skeletal system 3 4.5 Osteosarcoma 2 Ewing sarcoma 1
Genital cancer 13 18 Borderline mucinous over tm 6 Over adeno ca 2 Granulosa cell tm 1 Immatur teratoma 1 CIN 3 2 Vulca SCC 1	Skin cancer 3 4.5 Malıgn melanoma 2 Mucozis fungoides 1
Breast cancer 9 13.5 Invaziv ductal ca 8 Philloides tm 1	Other 1 1.5 Head-neck tm Tumor types N %

Conclusion: Our study revealed the data for a small group of patients in a single tertiary center. So ıt doesn't reflect the national data and further research are mandatory. The İncidences of preeclampsia, gestational diabetes, fetal growth restrıction show similar rates of general population. Cesarean section İncidence was very hıgh. There were no significant differences in pregnancy outcome. There was no increase in frequeny of congenital malformations in pregnancies achived after cancer treatment. As a result; this study has limited cases shows that there is no significant diferrences about expected obstetrics and neonatal complications between survivors and healthy populations. Cancer survivors should be encouraged to become pregnant after treatment and multidisciplinary team work is necessary for pregnancy follow up.

Keywords: Pregnancy, cancer, survivor