

Ruptured tubal hydatidiform mole

Tubal mol hidatiform rüptürü

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Abstract

Objective: Ruptured ectopic gestation is a life threatening medical emergency especially in developing countries. However, the occurrence of hydatidiform mole in ruptured tubal pregnancy is uncommon.

Material and Methods: A consecutive analysis of patients with hydatidiform mole in ruptured tubal gestation over a 9-year period in a tertiary hospital.

Results: Of a total of 101 females with ectopic gestations, only five had ruptured tubal hydatidiform mole. The ages ranged from 20-37 years and they all presented with acute abdominal symptoms which necessitated emergency surgical intervention. Intra-operative findings revealed ruptured/leaking tubal gestation. The excised tissue specimens showed hydatidiform mole characterized by circumferential trophoblastic proliferation, hydropic degeneration and stromal karyorrhexis. Patients' serial HCG levels were monitored before discharge.

Conclusion: Ruptured tubal hydatidiform mole is uncommon and strict histologic criteria are important in diagnosis. Serial HCG levels must be monitored in individual patients to forestall development of malignant trophoblastic disease.

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Key words: Choriocarcinoma, Hydatidiform mole, Tubal pregnancy

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Özet

Amaç: Ektopik gebeliğin rüptürü özellikle gelişmekte olan ülkelerde hayatı tehdit eden bir durum olmaya devam etmektedir. Rüptüre ektopik gebeliklerde mol hidatiform gelişimi nadirdir.

Gereç ve Yöntemler: Tersiyer bir merkezde 9 yıl boyunca meydana gelen rüptüre ektopik gebelikler arasında mol gebeliklerin araştırılması.

Bulgular: Ektopik gebeliği olan 101 gebenin sadece 5 tanesinde rüptüre mol hidatiforma rastlandı. Yaşları 20-37 arasında değişen bu vakaların tümü cerrahi girişim gerektiren bir acil durum ile hastaneye müracaat etmişlerdi. Ameliyat bulguları rüptüre ektopik gebelik ile uyumlu idi. Eksize edilen dokularda hidatiform mol karakterleri olan çevresel trofoblastik proliferasyon, hidropik dejenerasyon ve stromal karyoreksiz içeriyordu. Hastalara operasyon sonrası seri beta hCG takibi yapıldı.

Sonuç: Rüptüre Mol hidatiform yaygın değildir. Tanı için katı histopatolojik kriterler gereklidir. Seri beta hCG ölçümü malign potansiyeli dışlamak için yapılmalıdır.

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Anahtar kelimeler: Koryokarsinoma, mol hidatiform, tubal gebelik

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Introduction

Ectopic gestation is a common phenomenon with an incidence rate of 4.5/1000 to 16.8/1000 pregnancies and the fallopian tube is the commonest location in 1/200 to 1/300 pregnancy. (1-3). The rupture of an ectopic tubal gestation is a life threatening medical emergency and an important cause of maternal mortality in developing countries (4-7) Molar gestation is an uncommon complication of pregnancy characterized by the presence of abnormal trophoblastic tissue proliferation and can be differentiated into partial, complete and invasive types (8, 9) Its occurrence in ruptured tubal pregnancy is a rarity and less than fifty cases have been reported in the literature (10,11) We present five females with ruptured tubal hydatidiform mole.

Materials and Method

All consecutive patients diagnosed with tubal gestation and hydatidiform mole from January 2000 to December 2008 in

the Pathology laboratory of a tertiary hospital were analyzed. A total of one hundred and one (101) ectopic gestations were seen. All were located in the fallopian tube except for two cases, which occurred in the ovary. There were one hundred and fifty two (152) diagnosed gestational trophoblastic disease cases. Of these, one hundred and nine (109) had hydatidiform mole comprising the complete, partial and invasive types while choriocarcinoma accounted for the remaining forty-three (43) cases. Patients' tissue biopsies from salpingectomy or endometrial curettage were fixed in 10% formalin and processed with paraffin wax. Histology slides stained with haematoxylin and eosin were studied.

The diagnostic criteria of tubal pregnancy and rupture were the histological presence of chorionic villi, expanded edematous tubal wall and inflammatory cells. Tubal hydatidiform mole was diagnosed by the presence of chorionic villi with circumferential trophoblastic hyperplasia, hydropic swelling and absence of foetal vessels and parts (11). Only cases which fulfilled these diagnostic criteria of ruptured tubal hyda-

tidiform mole were presented. Human chorionic gonadotropin (HCG) levels were monitored weekly for 3 consecutive weeks, then monthly for 6 consecutive months. The monthly monitoring was done on an out-patient basis. Statistical analysis was done using SAS/STAT.

Result

One hundred and one (101) patients with ectopic gestation and one hundred and fifty-two (152) gestational trophoblastic disease (GTD) cases were seen in the department during the study period. All the ectopics occurred in the fallopian tubes except for two cases in the ovary. Of the GTDs, 109 were hydatidiform mole comprising 29 complete, 28 partial, 2 invasive and 50 unclassified moles. The remaining 43 GTDs were choriocarcinoma cases.

Only five patients aged 20, 28, 33, 35 and 37 years fulfilled the diagnostic criteria of tubal hydatidiform mole. Four of the patients presented with acute abdominal symptoms of pain associated with tenderness, vomiting, vaginal bleeding and varying periods of amenorrhoea which necessitated emergency surgical intervention. The fifth patient who presented with menorrhagia and a 14-week uterine size was diagnosed as a case of uterine fibroid. Three were nulliparous and none of the patients gave a history of previous abortion.

Intra-operative findings revealed ruptured and or leaking tubal gestation in all five and multiple intramural uterine fibroids in the fifth patient. All five patients had salpingectomy by laparotomy and the fifth also had myomectomy.

The excised tissue specimens sent for histology showed a ruptured and expanded tubal wall, chorionic villi of varying sizes exhibiting circumferential and polar trophoblastic proliferation, hydropic degeneration and stromal karyohexis (Fig. 1).

Serial urinary human chorionic gonadotropin (bHCG) levels of patients were monitored weekly for 3 weeks before discharge. Three of the patients were lost to follow up within three months after hospital discharge, while two were followed up for a year without recurrence or elevated HCG level.

Discussion

Hydatidiform mole represents a malformation of the placenta due to genetic aberration of the villous trophoblast characterized by cystic swelling and varying degree of trophoblastic proliferation (8-10). It is an uncommon complication of pregnancy and the most frequent GTD within the reproductive age of 13-49 years (9, 12, 13). However, a rare postmenopausal case has been reported (14). The common age of presentation from varying reports in our geographic region is the 3rd and 4th decade with a mean age of 28 years (15, 16). Our five cases fall within this age category.

The incidence of hydatidiform mole is variable for regions worldwide and ranges from 1 per 1000 to 1200 pregnancies in the United States to 10 per 1000 in Indonesia (8, 17, 18). Ectopic pregnancy accounts for one in 150 pregnancies and is unquestionably a major influence on increasing maternal mortality in developing countries, with an incidence of 1 per 114 deliveries, and also accounts for 14.4% of all gynaecologic and 19.28% of pregnancy related specimens (4, 7, 8, 19, 20).



Figure 1. Tubal fimbriae (black arrow) and hydropic villi with trophoblastic hyperplasia (white arrow)

Molar gestation commonly develops within the uterus but may also occur in sites of ectopic pregnancy (8). However, tubal ectopic hydatidiform moles are rare and less than 50 cases have been reported (11, 21, 22). Predisposing risk factors to development of tubal hydatidiform mole include nulliparity, pelvic inflammatory disease, oral contraceptive use, low socioeconomic status, prior hydatidiform mole and advanced or young maternal age (15,18).

It is important to monitor the HCG level of patients serially until it becomes undetectable using the recommended protocol of weekly for 3 consecutive weeks, then monthly for 6 consecutive months, to forestall recurrence and to aid in the early diagnosis of persistent trophoblastic disease or its malignant choriocarcinoma (12, 23- 27). However, one single undetectable HCG level after evacuation is sufficient follow-up in partial moles (28).

The frequency of choriocarcinoma is higher with complete mole (8, 10, 24). Its incidence is higher in areas where hydatidiform mole and ectopic gestation are prevalent as in our setting (10). This would explain the high number of choriocarcinoma cases recorded within the study period. Other pertinent reasons are patients' late hospital presentation, ignorance and poverty. Ruptured tubal hydatidiform mole is uncommon and the histologic criteria for its diagnosis conform to the complete mole type where foetal parts and vessels are absent (11, 29). Accurate pathologic diagnosis can also be achieved by flow cytometry to determine ploidy (30, 31). The presence of hydropic villi alone without trophoblastic proliferation is a feature of early placenta-tion or hydropic abortion when seen in the tubes and should not be confused with molar gestation (11). Serial HCG levels must be monitored in individual patients to forestall development of choriocarcinoma.

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