

Adnexal masses in pregnancy: clinical approach and pathological findings

Gebelikte adneksiyal kitleler: klinik yaklaşım ve patolojik bulgular

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Summary

Aim: We evaluated histopathological findings and clinical approach of 25 pregnancy associated adnexal masses who were seen between years 2004 and 2009 at our department in this study.

Material and Methods: Furthermore, we tried to discuss management choices for his situation regarding recent literature. During this period, Pregnant patients operated with an adnexal mass 5cm or greater in diameter was included and pregnancy outcome, complications and surgical pathology were investigated.

Results: The incidence of an adnexal mass in all deliveries was 0.3%(25/7512) of deliveries. Torsion or rupture of the adnexal mass was occurred 4% (1/25) of the cases. Two patient were diagnosed during the first trimester and they were operated in the second trimester because of adnexal masses diameters were 20cm. A malignant tumor was found only one patients and histopathological type was serous papillary adenocarcinoma.

Conclusion: We have not seen reverse pregnancy outcome regarding adnexal mass and operative procedure.

Key Words: Adnexal mass, pathological findings, clinical approach.

Özet

Amaç: Çalışmamızda 2004-2009 yılları arasında kliniğimizde takip edilen 25 adneksiyal kitleli gebelik olgularına klinik ve histopatolojik yaklaşımlarımız değerlendirildi.

Yöntem ve Gereç: Sunulan çalışmamızda güncel literatür eşliğinde tedavi seçenekleri tartışıldı. Çalışmaya alınan hastalar 5cm ya da daha büyük çapta adneksiyal kitleleri olan gebelerdi. Olgular gebelik sonuçları, komplikasyonlar ve cerrahi patolojiler açısından araştırıldı.

Bulgular: Adneksiyal kitlelerin insidansı tüm doğumlarda % 0,3 (25/7512) olarak bulundu. Torsiyon yada rüptür adneksiyal kitlelerin %4 ünde (1/25) görüldü. İki olgu ilk trimesterde tanı aldı ve 20cm çapında olduğu için ikinci trimesterde opere edildi. Yalnızca bir hastada malign histopatoloji saptandı ve bu olgudaki histopatolojik tanı seröz papiller adenokarsinom idi.

Sonuç: Çalışmamızda gebelikte adneksiyal kitleler ve bunlara bağlı gelişen operatif süreçlerin gebelik sonuçlarını kötü yönde etkilemediğini saptadık.

Anahtar Kelimeler : Adneksiyal kitleler, patolojik bulgular, klinik yaklaşım.

Introduction

Recently, adnexal masses has seen more often with using of routine prenatal ultrasonography during pregnancy. Evaluation of the ovaries and adnexae was suggested absolutely in the first trimester examination and they should be observed standard second or third trimester examination as clinically appropriate when technically feasible regarding guideline developed by the American College of Obstetrics and Gynecology (1).

The incidence of adnexal masses during pregnancy was 1-2% approximately (2-4). Most of these cysts are functional or hormonally responsive and they will resolve by 16. gestational weeks. Some adnexal masses persist and malignancy possibility was ranged 1-8% at different reports for them (5-11). Conservative and surgical approach has seen also two different management option but they were operated usually, which could decrease the risk of complications, such as torsion or rupture and which could diagnose malignancies early.

Material and Method

This was a retrospective study 25 women who underwent adnexal surgery during pregnancy at a tertiary centre, between 2004–2009. The hospital patient records were reviewed regarding an adnexal mass during pregnancy. Pregnants were included in this study if the mass size was 5cm or bigger.

The medical records were investigated for patient age, gravity, parity, gestational age at diagnosis, gestational age at operation, presenting symptoms, birth weight and Apgar scores. Pregnancy outcome, complications, and surgical histopathology were reviewed from patient files. All the data were noted and analysed.

Results

7512 deliveries were existed at our department between years 2004 and 2009. During this period, we identified 25 (0,3%) women with a hospital diagnosis of an ovarian mass associated with pregnancy. Patients have been included ranging in age from 23 to 39 years old (median of 29,7 years old). Median gestational age was 32 weeks (range 11–40 weeks). At the time of operation, the median gestational age was 34.5 weeks (range 18 weeks–40 weeks). The mean gravidity was 2,1 (primigravidity: 12, gravidity >1: 13). and the mean parity was 0,7 (nulliparity: 14, parity \geq 1:11). Median birth weight was 2720 g (range 820–3700 g) and median Apgar scores were 7 and 9 for 1 and 5 min, respectively. The characteristics of the patients are shown in (Table 1) All the operations were performed after first trimester of pregnancy by laparotomy.

Table 1. Median of maternal and neonatal data.

	Median (range)
Maternal age	29,7 (23-39)
Gestational weeks at diagnosis	32 (11–40)
Gestational weeks at operation	34.5 (18–40)
Gravidity ¹	2.1
Parity ²	0.7
Birth weight	2720 g (820–3700)
Apgar scores	
1 min	7
5 min	9

¹Primigravidity: 12 (48%), gravidity >1: 13 (52%).

²Nulliparity: 14 (56%), parity \geq 1:11 (44%).

Adnexal masses were observed incidentally at 19 (76%) of 25 cases while caesarean section was performed with obstetrical reasons. Cystectomy or oophorectomy for the adnexal mass was performed at the time of cesarean delivery in all cases. 6 (24%) of all patients were diagnosed on routine prenatal ultrasound examination during antenatal follow-up. Two patient were operated in the second trimester because of adnexal masses diameters were 20cm. The one of six patient was complicated with paratubal cyst torsion, a 7cm cyst. The other two cases were planned for caesarean section due to adnexal mass after 38 weeks of gestation.

Table 2. The histopathology of the adnexal masses (n:25)

Pathologic Diagnosis	number (%)
Cystadenoma	10 (40)
Dermoid cyst	5 (20)
Functional cyst	4 (16)
Paratubal cyst	3 (12)
Adenofibroma	1 (4)
Endometrioma	1 (4)
Serous papillary adenocarcinoma	1 (4)

The median adnexal mass diameter was 8.3cm in largest diameter (range 5-20cm). Cystadenoma was most common histopathological diagnosis (40% [10/25]). The pathology of the masses are shown in Table II. They had generally unilateral adnexal mass short of two

patients. The 6 patients diagnosed by ultrasonography preoperatively. Four of them were cystic (7, 10, 15 and 20cm) and other two were solid (9, 20cm). The one case underwent emergency laparotomic cystectomy for paratubal cyst torsion at 40 weeks of gestational age. A malignant tumor was found only one patients. A 7cm complex cyst was diagnosed ultrasonographically at 24 weeks of gestation. We planned for caesarean section after 36 weeks of gestational age. Patient had stage IIIA disease at the time of antepartum surgery. Histopathological type was serous papillary adenocarcinoma. Postpartum hysterectomy and staging were performed after chemotherapy. She was disease-free at 2 years.

Discussion

Bernhard et al reported a large series that rate of adnexal masses in pregnancy was 2,3% (432 of 18,391). We observed that this rate was 0,3%. They also found rates of benign cystic teratomas and cystadenomas, respectively (39%-26%). In our series, the most common histological diagnosis of adnexal masses in pregnancy was cystadenoma (40%) and dermoid cyst (20%), adversely.

Ovarian torsion can occur regarding large adnexal masses during pregnancy. The rates of torsion is ranged 1-12% in some series (3,8,12). This rate is 4%(1/25) in our study. Lower risk of torsion was reported newer series. It may be depends using of routine prenatal ultrasonography during pregnancy. Thus, asymptomatic masses can be detected more commonly. It may be same situation regarding cyst rupture.

Leiserowitz et al reported a large series that the risk of malignancy of ovarian masses diagnosed during pregnancy was 1% (13). Most germ cell tumors are dysgerminomas, which are predominantly low stage (2). At the same time, They are associated with favorable

maternal and neonatal outcomes (13). In our study, the patient with stage IIIA serous cystadenocarcinoma is disease free at 2 years following staging procedure.

The two important issue are considered after operation decision. These are reproductive outcome after anaesthesia and operation. It is hard that any complication reason was not distinguished only one of them. There was no increase the risk of congenital malformation and stillbirths among women operated on during pregnancy at two large studies (14,15). However, Duncan at all reported an increased risk of spontaneous abortion during the first and second trimester (14).

Laparoscopy can be performed for adnexal masses during pregnancy. Although several studies have found this approach to be safe and effective, surgeon preparation, technical skill, and technique are critical to obtain good patient outcomes (16).

Conclusion

The risks to the mother and the fetus are most important factor for choosing conservative or expectant management. A good randomized clinical trial of surgical versus nonsurgical management of adnexal masses in pregnancy is essential. Acute clinical symptoms may required emergency intervention at any trimester in the pregnancy. Ultrasonography is one of the major pathfinder for choosing management protocol at asymptomatic patients. MRI and color doppler may be helpful for indetermined adnexal masses after ultrasound evaluation. Optimum diagnostic and management strategy can achieved by multidisciplinary team approach at atypical situations.

Kaynaklar

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