Giant Ovarian Mucinous Cystadenomas Complicating Pregnancy: Case Report

GEBELİĞİ KOMPLİKE EDEN DEV OVARYAN MÜSİNÖZ KİSTADENOM: OLGU SUNUMU

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Abstract

We report two cases of giant ovarian mucinous cystadenoma of ovary complicating pregnancy. The first case in the 33rd week of her pregnancy was referred with a large cystic adnexal mass in maternal abdomen. After a complete evaluation, surgical exploration was performed due to increasing abdominal pain which revealed a voluminous cyst measuring about 25 x 22 cm originating from right ovary. A salpingo-oopherectomy was performed. Pathologic examination revealed mucinous cystadenoma. The patient presented with preterm labor 3 weeks later. The second case in the 14th week of gestation presented with abdominal pain. Ultrasound examination revealed a large multilocular cyst in maternal abdomen with septa and echogenic foci. Surgical intervention by laparotomy was performed due to suspection of torsion which revealed a large, hemorrhagic adnexal mass measuring about 20x15 cm twisted on its pedicle originating from the right ovary. A salpingo-oopherectomy was performed. Pathologic examination revealed mucinous cystadenoma. Spontaneous labor began at 40th week of gestation.

Adnexal masses may be difficult to diagnose and manage during pregnancy. The purpose of this report is to characterize huge adnexal masses associated with pregnancy, to detail the management of these masses and to report on the maternal and fetal outcomes.

Key Words: Ovarian mucinous cystadenoma, adnexal mass, pregnancy

Özet

Bu yazıda gebeliği komplike eden dev ovaryan müsinöz kistadenomlarla ilgili iki olgu sunulmuştur. İlk olgu gebeliğinin 33. haftasında maternal batında büyük, kistik adneksiyel kitle tanısıyla kliniğimize refere edilmişti. Değerlendirme sonrasında artan karın ağrısı nedeniyle hasta laparatomiye alındı. Laparatomide sağ overden kaynaklanan 25 x 22 cm'lik kistik kitle saptandı. Salpingo-ooferektomi yapıldı. Patoloji sonucu müsinöz kistadenom olarak geldi. Hasta yaklaşık 3 hafta sonra preterm eylem tanısıyla başvurdu. İkinci olgu gebeliğinin 14. haftasında karın ağrısı şikayetiyle başvurdu. Ultrasonografik incelemede maternal batında septa ve ekojenik odak içeren multiloküle kist tesbit edildi. Torsiyon şüphesi ile laparatomiye alındı. Laparatomide sağ overden kaynaklanan 20 x 15 cm'lik torsiyone kitle saptandı. Patoloji sonucu müsinöz kistadenom olarak geldi. Kırkıncı. gebelik haftasında spontan eylem başladı.

Adneksiyel kitlelerin tanısı ve yönetimi gebelikte güç olabilir. Bu yazını amacı gebelikte gözlenen adneksiyel kitleleri tanımlamak, yönetimine değinmek ve maternal-fetal sonuçları değerlendirmektir.

Anahtar Kelimeler: Ovaryan müsinöz kistadenom, adneksiyel kitle, gebelik

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In 1994, Kohler reviewed the literature and reported an adnexal mass complicating pregnancy is approximately 1in 600 cases.[1] By the help of routine ultrasonographic examination during pregnancy, adnexal masses have been noted to occur in up to 1% of all gestations.[2]

The most common pathologic lesions of benign ovarian tumors in pregnancy are benign cystic teratomas (45%) followed by cystadenomas (31.5%).[3] Between a policy of waiting and interventionism, where and how the optimal management is situated remains dilemma.

We report two cases of pregnant women with ovarian mucinous cystadenoma. Patient approvals

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were received for taking intra-operative photographs. The purpose of this report is to characterize huge adnexal masses associated with pregnancy, to detail the management of these masses and to report on the maternal and fetal outcomes.

Case Reports

Case 1

A 23 year old woman in 33rd week of her pregnancy was referred to our clinic with a diagnosis of large cystic adnexal mass in maternal abdomen. During the last 3 weeks, she reported a feeling sense of heaviness and pain. On inspection, the patient had minimally asymmetrical distention of abdomen. Ultrasonographic examination revealed an intrauterine pregnancy of vertex presentation consistent with gestational age. On the right side and above the uterus there was a huge cystic mass with internal echogenity occupying the whole maternal abdomen (Figure 1a).

Betamethasone (12 mg /im /day for two consecutive days) was administered for the enhancement of fetal lung maturation.

Due to increasing abdominal pain, surgical intervention was performed using laparotomic approach under general anesthesia in left lateral tilt position. A midline skin incision was performed. Laparotomic exploration revealed a voluminous cyst measuring about 25 x 22 cm. Initially, the cyst was aspirated to avoid its rupture and spread of contents into the abdominal cavity while taking it out of the abdomen and to see the relationship of the cyst with other pelvic organs. After the aspiration, it was seen that the cyst was originated from the right ovary (Figure 1b, 1c). Since the cyst was enormously large in size and there was no normal ovarian tissue left, a right salpingo-oopherectomy with the excision of related mass was performed. Histopathologically, the tumor was reported as mucinous cystadenoma.

During the post-operative period, ritodrine (100 mg in 500 cc 5% dextrose solution) as a tocolytic agent was administered for 24 hours. The patient's post-operative course was uncomplicated with no bleeding and contractions. She was dis-

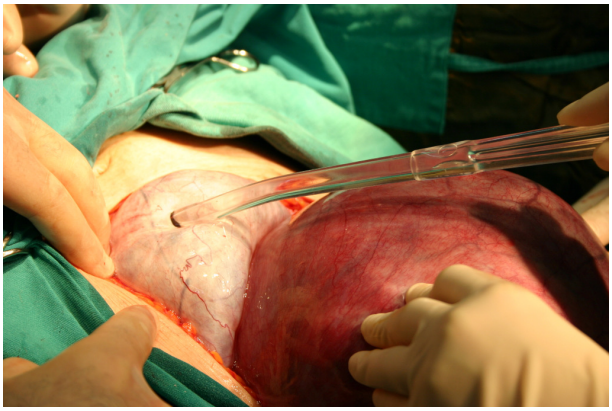

Figure 1b. Relationship between the uterus and the ovarian cyst at laparotomy.

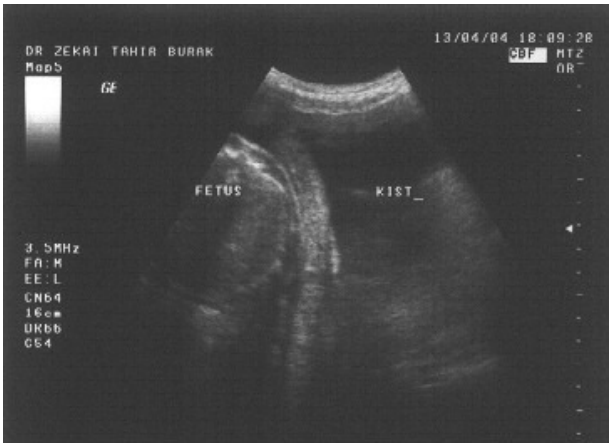

Figure 1a. Sonographic appearance of the cyst.

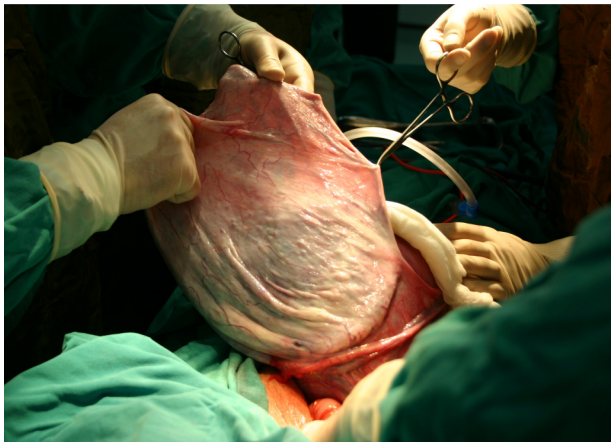

Figure 1c. Photograph of the cyst after aspiration.

charged from hospital 11 days after the surgery.

About 3 weeks after surgery, the patient presented with spontaneous labor at 36th week of gestation. The patient had uncomplicated vaginal delivery of female infant weighing 1900 gr with an Apgar- score of 7 after 1 min and 9 after 5 min.The infant was taken to Neonatology Clinic due to low birthweight.

The patient was discharged 3 days after delivery. Eight months after the delivery, both mother and infant were in good condition.

Case 2

A 35 year old woman admitted to our clinic in the 14th week of her pregnancy with abdominal pain lasting for 10 days. On inspection, the patient had an asymmetrical distention of the abdomen. On bimanual examination, an adnexal mass about 20 cm on the right side of the gravid uterus was palpated. An ultrasound scan showed an intrauterine pregnancy with breech presentation consistent with gestational age. On the right adnexal region there was a voluminous multilocular cyst with septa and echogenic foci.The assay of tumor markers (CEA, AFP, Ca 19-9, Ca 15-3, Ca 125) was in normal range for this week of pregnancy.

Surgical intervention by laparotomy was performed by midline skin incision under general anesthesia in lateral tilt position due to severe abdominal pain and suspection of torsion. Exploration revealed a huge, hemorrhagic mass measuring about 20 x 15 cm originating from right ovary and was twisted on its pedicle. A right salpingo-oopherectomy was performed due to necrotic appearance of the ovary (Figure 2). Histopathologic examination revealed necrotic mucinous cystadenoma.

After 3 days of uncomplicated post-operative follow-up period, she was discharged from hospital. Spontaneous labor began at 40th week of gestation. The patient had cesarean section due to fetal distress syndrome. She delivered a healthy male infant in vertex position with a birthweight of 3840 gr. The apgar score was 7 after 1 min and 8 after 5 min. The patient was discharged 2 days after delivery. Six months after the delivery, both mother and infant were healthy.

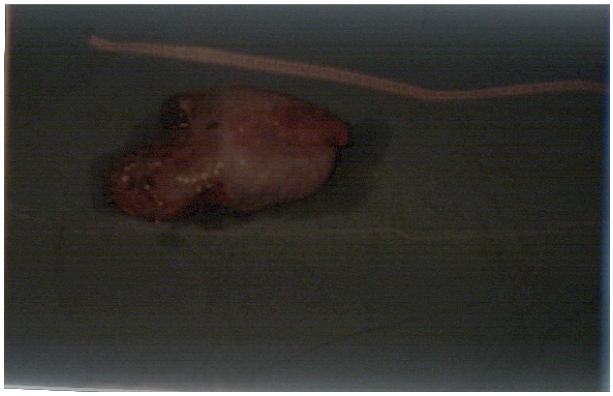

Figure 2. Photograph of the cyst after aspiration.

Discussion

Adnexal masses in pregnancy may be difficult to diagnose because the gravid uterus may change localization and prevent adequate palpation of coexisting adnexal mass.[4] Many times the symptoms are taken as one of the symptoms of pregnancy.[5] Now with the use of high resolution ultrasound, the number of adnexal masses diagnosed concurrently with pregnancy has increased.

The management of adnexal masses during pregnancy depends on gestational age, sonographic appearance and size of mass. About 90% of unilateral, mobile and non-complex cysts of <5 cm and 36% of even >5 cm are documented to resolve spontaneously.[5] It is therefore reasonable to observe non-suspicious masses conservatively until 2nd trimester. Both expectant management and surgical intervention of these adnexial masses in pregnancy have their own set of problems. The risks of expectant management are risk of rupture, torsion or malignancy. Any ovarian tumor large enough or symptomatic enough to require laparotomy needs to be evaluated due to possibility of malignancy especially in elderly primipara.[5] Color doppler ultrasound, magnetic resonance imaging and aspiration cytology in specific cases, can be used in assessing the malignity risk of mass. On the other side, the risks of active management lie in the risk of surgery itself. Fetal loss rate secondary

to surgery during pregnancy for adnexal masses varies between 10% and 25%.[6]

In 1963, Mundbill reported 3 indications for surgical removal of an adnexal mass during pregnancy which are also advised by most authors today: danger of torsion, rupture or hemorrhage, danger of malignancy or causing dystocia.[7]

With regard to size, the ovarian tumors discovered in 1st or 2nd trimester, surgical approach is recommended in the 2nd trimester if it's larger than 6 cm. Whereas in case of simple cyst less than 6 cm, ultrasound follow up every 4-6 weeks is advised.[6]

The best time for surgery can be considered early in 2nd trimester when the time for a spontaneous resolution as well as the risk of abortion is over and surgery is easier[5] as in our 2nd case whom adnexal mass was removed in 14th gestational week and the patient delivered a term healthy infant. In case of a surgery in 1st trimester, there's increased risk of abortion due to disruption of corpus luteum.[5] The adnexal masses diagnosed in 3rd trimester cause the most therapeutic problems. The risk of prematurity is reported to be markedly increased if surgical intervention is done in 3rd trimester[3] as in our 1st case. We excised the ovarian tumor at 33rd week of gestation because the patient was suffering from severe abdominal pain which caused us to suspect complications such as rupture or torsion.

At or near term, most authors advise cesarean section with simultaneous removal of tumor.[8] But if tumor does not obstruct labor, vaginal delivery may be tried followed by removal of mass in puerperium.[9] On the other hand Van Oppen et al. reported a case of conservative management of an ovarian cyst in late pregnancy by which an ultrasound puncture of cyst allowed vaginal delivery.[9]

In case of surgical approach, laparotomy is commonly used, because it allows good visualization of surgical field (especially for the risk of malignancy) and may be performed in each trimester of pregnancy.[9,10] During laparotomy, positioning of a pregnant patient in a lateral tilt aids the uteroplacental blood flow.[6] Although some reports of laparoscopic surgery during pregnancy have been reported, data are insufficient to draw conclusion on its safety and exact complication rates.[5]

In conclusion, accurate timing, correct intervention in selected cases is important in the management of adnexal masses during pregnancy.

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