Giant Luteinized Follicle Cyst in Term Pregnancy: A Case Report


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Abstract
The management of adnexal masses in pregnancy is variable depending on the nature of the mass and the gestational age at the time of diagnosis. Here we present a case of a 20-year-old pregnant woman at 38th week of gestation with a 25x20 cm intraabdominal cystic mass diagnosed on ultrasound at labor ward incidentally. She was on active labor and spontaneous vaginal delivery was performed successfully. The management options of a giant adnexal cyst diagnosed in pregnancy is discussed.

Key words: Giant ovarian cyst, term pregnancy

Introduction
The frequency of adnexal masses diagnosed concurrently with pregnancy has been increased with the routine use of ultrasonography, so early diagnosis of the adnexal masses had become possible. Currently, adnexal masses have been noted to occur in up to 1% of all gestations.

The management of adnexal masses in pregnancy is variable depending on the nature of the mass and the gestational age at the time of diagnosis. Symptomatic adnexal masses or masses >6 cm in size are generally considered significant and require intervention.

We present a case of giant ovarian cyst diagnosed during active phase of labor and discuss the management alternatives.

Case Report
A 20-year-old woman gravida 2, para 1 at the 38th week of gestation was admitted to the emergency room with labor pain. Her medical and family history was unremarkable. Her antenatal follow-up consisted of only one visit at the beginning of the third trimester which revealed normal sonographic findings. She had infrequently experienced non-specific dull pain and cramps in the lower abdominal region.

Her initial pelvic examination revealed 50% effacement, 4 cm dilatation, vertex presentation at station -3. On abdominal examination the uterine fundus leveled appropriate for gestational age with no abdominal tenderness or localising sign. On abdominal ultrasound, a live structurally normal fetus appropriate for gestational age and a unilocular, thin-walled, 25x20 cm sized cystic mass outside the uterus extending from the pelvis to the upper left quadrant were observed. The cyst was likely to be of left ovarian origin. Doppler ultrasound examination was suggestive of its benign nature.
seen that the cyst was intact. Postpartum follow-up was uneventful. Ca-125 level was 66.09 u/ml at the fifth day of delivery and the patient was discharged from the hospital given an operation date.

On the eighteenth postpartum day, laparotomy through a lower midline incision was performed. During exploration 25x20 cm sized, thin walled, unilocular left ovarian mass containing clear fluid was seen. Unilateral oophorectomy was performed and sent for frozen section examination which revealed benign nature of the cyst (Fig 1). On the third postoperative day the patient was discharged without any complications. Postoperative histological examination was consistent with luteinized follicular cyst.

Discussion

Giant ovarian tumors are only rarely seen in pregnancy and represent a clinical as well as a surgical challenge. Cyst size, gestational age and sonographic appearance all need to be considered when evaluating adnexal masses and formulating a treatment plan. As the mass in our case was detected during active phase of labor, two options were available: either operative extirpation of the mass by immediate cesarean section or vaginal delivery followed by a planned laparotomy.

Adnexal mass size has been used as an indicator for surgery in non pregnant patients. Masses larger than 8 cm or masses between 5 - 8 cm that did not resolve after 8 weeks in menstruating women are recommended to be removed surgically. However, using size alone as an absolute discriminator does not appear to be predictive unless the lesion is less than 6 cm. Different evaluation techniques using weighted scoring systems (including septations, wall structure and echogenicity) were evaluated in order to differentiate between malignant and benign tumors. The positive predictive values in differentiating certain benign conditions from malignancy yielded values around 30%.

The management of adnexal mass in pregnancy changes due to the gestational age and mass characteristics. Before 16 weeks’ gestation, it is recommended to consider removal of the cyst postpartum if the cyst is asymptomatic and ≤5 cm. If the cyst is ≤5 cm with solid/complex appearance on ultrasound, 5-10 cm and anechoic or >10 cm, it should be removed at 16-20 weeks gestation. After 16 weeks’ gestation, one can consider removal of an anechoic cystic mass ≤5 cm postpartum but a mass with solid/complex appearance or >5 cm requires exploratory laparotomy.

As in our case, either immediate surgical resection of the cyst during cesarean section or vaginal delivery later followed by planned laparotomy carry with them their own set of problems. The incidence of cancer associated with adnexal masses in pregnancy is 13% with 63% being low malignant potential and remaining 37% with stromal invasion. Because of the high incidence of malignancy of such masses, frozen section during operation is mandatory. However in emergency settings, as in our case, where there is no opportunity to study frozen section, vaginal delivery later followed by planned laparotomy with frozen section study may be an appropriate option. One of the most probable complications during vaginal delivery could be the rupture of the cyst. However, this problem may be overcome by not applying external uterine pressure (Kristeller maneuver) during delivery and by close monitorization of the patient before and after birth.

References

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