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Case Report

Adnexal mass in pregnancy

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ABSTRACT

Adnexal masses in pregnancy are a rare finding. The majority of these masses are discovered incidentally during routine follow-up. The differential diagnosis of adnexal masses discovered during pregnancy is broad and the management of such lesions has been a subject of debate for years with no consensus regarding the best management plan. We report a case of a 38 year-old pregnant woman who was diagnosed at the time of the first trimester ultrasound with a multilocular solid arising form the right ovary. A laparoscopy followed by left oophorectomy was performed at 22 weeks and the definitive histology revealed a borderline ovarian cyst/proliferative mucinous atypical cyst. The patient delivered via vaginal at 38 weeks of gestation. This case was discussed and a secondary staging surgery (peritoneal washing, total abdominal hysterectomy, salpingo-oophorectomy, omentectomy, appendectomy, and peritoneal biopsies) was performed with no evidence of disease found. The surgical approach is controversial due to the increased risk of complications. In the absence of large prospective randomized trials it is difficult to know which are the best management practices and especially to determine the right moment during pregnancy to perform surgery in these patients.

Keywords: Adnexial mass, Ultrasound, Pregnancy

INTRODUCTION

Adnexal masses in pregnancy are a rare finding. The reported incidence ranges from 1 in 76 to 1 in 2328 pregnancies.

Most of them may be asymptomatic findings revealed on routine pregnancy investigations. Its incidence and detection rates have increased with the application of ultrasonography in pregnancy follow-ups.

An adnexal mass in pregnancy can be complicated by torsion (5%), venous congestion, rupture, or bleeding/infection, or labor obstruction. Malignancy is usually associated with the presence of symptoms; an abdominal mass is the most common complaint in patients with adnexal malignancy.[1]

Regarding to an asymptomatic adnexal masse during pregnancy its imperative to clarify the degree of suspicion of malignancy as it will come condition the management of the tumour.[2]

Ultrasound is of paramount importance in evaluating a pelvic mass given its high sensitivity and specificity, greater than 90%.

The management of adnexal masses in pregnancy is controversial. It depends on the nature and type of these masses determined by radiological studies, gestational age, available resources, and possibly patient preference following careful evaluation, as well as by any complications that may arise.[1]

Majority of the adnexal masses diagnosed in pregnancy are benign and will resolve spontaneously. Consequently, in the absence of symptoms or sonographic findings concerning malignancy, patients should be managed expectantly.[3]

Masses that are discovered in the first trimester in asymptomatic patients should be evaluated by ultrasound looking for features of malignancy. If there is suspicion of malignancy, surgical intervention should be carried out, preferably in the second trimester (16–20 weeks) to avoid the risks of miscarriage if performed earlier, or preterm delivery if performed later, preferably before 20 weeks to get better access to the adnexal area.[1]

If ultrasound fails to demonstrate malignant features, observation with reevaluation in the next fetal anatomy scan (18–22 gestational weeks) is deemed reasonable.

Despite the potential risks, surgical management should be performed for any symptomatic adnexial mass or with highly suspicious for malignancy based on rapid growth, ascites, or evidence of extraovarian disease.[1]

In tumors with some analytical or ultrasound criteria suggestive of malignancy, but without solid parts or central vascularization, the case will be individualized, assessed jointly by the oncological gynecology committee, specialists in maternal-fetal medicine and with the patient.[3]

During the postoperative period it's important to secure the fetal well-being and the risk of prematurity will be assessed by ultrasound with cervical length measurement.

Apart from the increased rate of cesarean sections, and the risk of thrombosis, there was no significant increase in maternal morbidity or mortality. However, prematurity, was a significant newborn risk in women with malignant ovarian tumors. Newborns of women with ovarian mass had comparable risks of intrauterine growth restriction, preterm rupture of membranes, and intrauterine death.[4]

The definitive treatment will depend on the pathological anatomy of the tumor. In the absence of malignancy, the usual obstetric controls will be followed, taking into account the greater risk of prematurity associated with surgery. In the case of a malignant tumor, it will act in a multidisciplinary and consensual manner with the patient, between oncological gynecology, medical oncology, maternal-fetal medicine and neonatology. Patients with borderline tumors of the ovary should be directed by a multidisciplinary perinatal, and oncologic team.[5] Although recurrence rates are higher, most are salvageable with additional surgery.

CASE REPORT

The following case refers to a 38 years old girl, G2P1, with a known adnexal cyst for several months and interpreted as probable endometrioma with 4.1 cm. On the first trimester ultrasound, there were detected changes in the characteristics of the mass - a heterogeneous and highly vascular solid component, arising from the left ovary (Figures 1 and 2) - and an increase in its dimensions (from 4.1 to 10 cm) which deemed appropriate an obstetric referral. The patient was asymptomatic, denying weight loss and abdominal pain or distention. All laboratory data was within the normal range and the tumor markers were negative at the time.

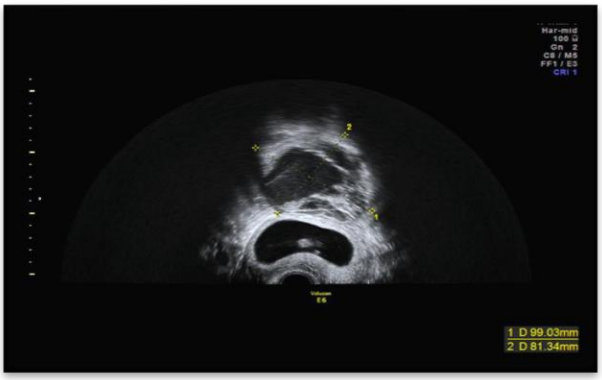

Figure 1: Heterogeneous and highly vascular solid component mass, arising from the left ovary.

Given the dimensional increase and associated suspicion of, she underwent a left sided laparoscopy oophorectomy and peritoneal fluid biopsy at 22 weeks of gestation. Intraoperative findings revealed a large cystic tumor of the left ovary with a solid component. Peritoneal washing was performed afterwards. The abdomen and the appendix were thoroughly examined and no signs of implants, adhesions, or metastasis were found.

The post-operative period were unremarkable and the remaining pregnancy was uneventful.

Pathological examination revealed an borderline ovarian cyst/proliferative mucinous atypical cyst.

The case was discussed at a gynecological oncology meeting and the decision to perform a inducing labor was made with the surgical staging to be completed afterwards. The patient delivered via vaginal at 38 weeks of gestation a baby with 2530 g and APGAR 10/10/10.

After discussion with the patient secondary staging surgery (peritoneal washing, total abdominal hysterectomy, unilateral salpingo-oophorectomy, omentectomy, appendectomy, and peritoneal biopsies) was performed and no evidence of disease was found. Currently the patient is being followed (36 months after the first surgery) and all imaging data show no signs of disease relapse.

DISCUSSION

The management of adnexal masses in pregnancy depends on the nature and type of these masses determined by

radiological studies as well as by any complications that may arise.

In general, stable, asymptomatic ovarian masses can be managed expectantly with surgical evaluation at the time of cesarean delivery or post-partum.

In contrast, symptomatic adnexial masses that are highly suspicious for malignancy due to raid interval growth or extraovarian evidence of disease requires intervention.[1]

The best surgical outcome is usually observed during the second trimester but there are no established guidelines regarding the optimal timing for surgical procedures.[1]

Another point of discussion is the surgical route. Laparoscopy is safe and feasible, and both maternal and perinatal outcomes are favorable. However, the size of the mass and the enlarged uterus may play an important role in the efficacy of this surgical approach.[3]

Confirmed low malignant potential tumors pregnancy can be treated conservatively by salpingo-oophorectomy, peritoneal washing, and abdominal exploration. Due to the good prognosis of these tumors, complete surgery can be deferred until after delivery.[2]

CONCLUSION

Data from the literature is not consensual on the management of adnexial masses during pregnancy and further studies are needed to evaluate the diagnostic modalities and the management options available for these masses.

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