

Large Ovarian Mass That Can Mimic a Malignancy

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ABSTRACT

Pregnancy luteomas are rare, non-neoplastic, tumour-like ovarian masses. They are always benign and usually resolve spontaneously at 3 weeks post-partum. In the antenatal period it can be difficult to distinguish between a pregnancy luteoma and a malignant mass.

While most adnexal masses in pregnancy are benign and regress spontaneously, those that persist into the third trimester are more suspicious.

The investigation and management of the adnexal mass needs to take into consideration both the pregnant patient and her fetus in the antenatal period, making it a challenge in diagnosis and management.

We present a case of a 39-year-old woman with a large left sided adnexal mass diagnosed on obstetric imaging and resected during caesarean section.

BACKGROUND

The detection of adnexal masses has increased due to the widespread use of ultrasonography in pregnancy. They are usually found incidentally during the first trimester however the true incidence has not been elucidated, with reported rates ranging from 1 in 76 to 1 in 8000 pregnancies.^{1,2} While most are benign and regress spontaneously, up to 8% of these adnexal masses in pregnancy will be malignant.³

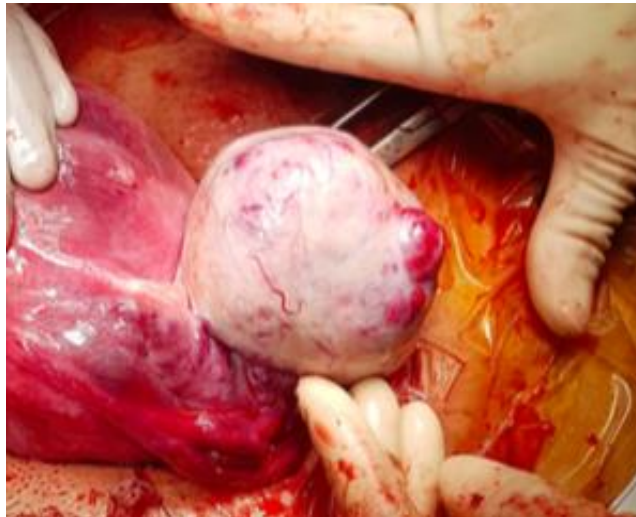


Figure 1: Intraoperative photo of the left ovarian pregnancy luteoma measuring 65 x 65 x 55mm.

CASE PRESENTATION

Our patient was a 39-year-old woman G2P1 with a previous elective caesarean at 40 weeks gestation for breech presentation, during which no abnormalities were detected in an adnexal structure.

In this pregnancy there was an incidental finding of a large heterogeneous solid mass in the left adnexa on nuchal translucency ultrasound at 12 weeks gestation. Persistence of the left adnexal mass and a notably small for gestational age fetus was noted on morphology scan. A tertiary ultrasound was performed, diagnosing fetal congenital heart disease with ventricular septal defect. She had no signs or symptoms of virilisation. The Ca-125 was mildly elevated at 40 and the Ca-19.9 was negative at 3.2. The patient was counselled, and a plan was for antenatal monitoring of the adnexal mass that measured up to 7cm.

She was booked for an elective repeat caesarean section at 39 weeks. However, presented with spontaneous rupture of membranes at 38 weeks, and underwent an emergency caesarean with left salpingo-oophorectomy after gynaecology oncology input (figure 1). A single live female fetus was born with no evidence of virilisation.

Histopathology of the left fallopian tube and ovary revealed a diagnosis of pregnancy luteoma with no features of atypia or malignancy. There were no malignant cells in the omental biopsy or peritoneal washings. The postoperative course was unremarkable. The patient was discharged home day two.

DISCUSSION

Pregnancy luteomas are non-neoplastic ovarian masses that can develop during pregnancy. Hormones such as hCG stimulates the growth of luteinized stromal cells resulting in stromal-cell hyperplasia,⁴ but the exact pathogenesis is unclear. Stromal cell proliferation results in increased androgens that can result in maternal and female fetal virilization.

Pregnancy luteomas grow to about 10cm and have the potential to cause torsion.⁵ Sonographic features are nonspecific and unable to distinguish luteomas from other solid ovarian malignancies.³

While tumour markers are commonly used in the investigation of an ovarian mass in non-pregnant women, its use is not recommended in pregnancy. During caesarean section, ovarian biopsy using frozen section can assist in preventing unnecessary oophorectomy, although a 3% of false negatives may result in a missed malignancy.⁶

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