



MANAGEMENT OF COMPLEX ADNEXAL MASSES IN PREGNANCY: A CASE REPORT

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Introduction

- 4% of pregnant women are diagnosed with adnexal masses.
- Most are incidental, asymptomatic, and resolve spontaneously.
- Malignancy rate is 2-5%.
- Larger complex cysts need further investigations and treatment.

Aim

To present to you our experience in managing complex adnexal masses in pregnancy.

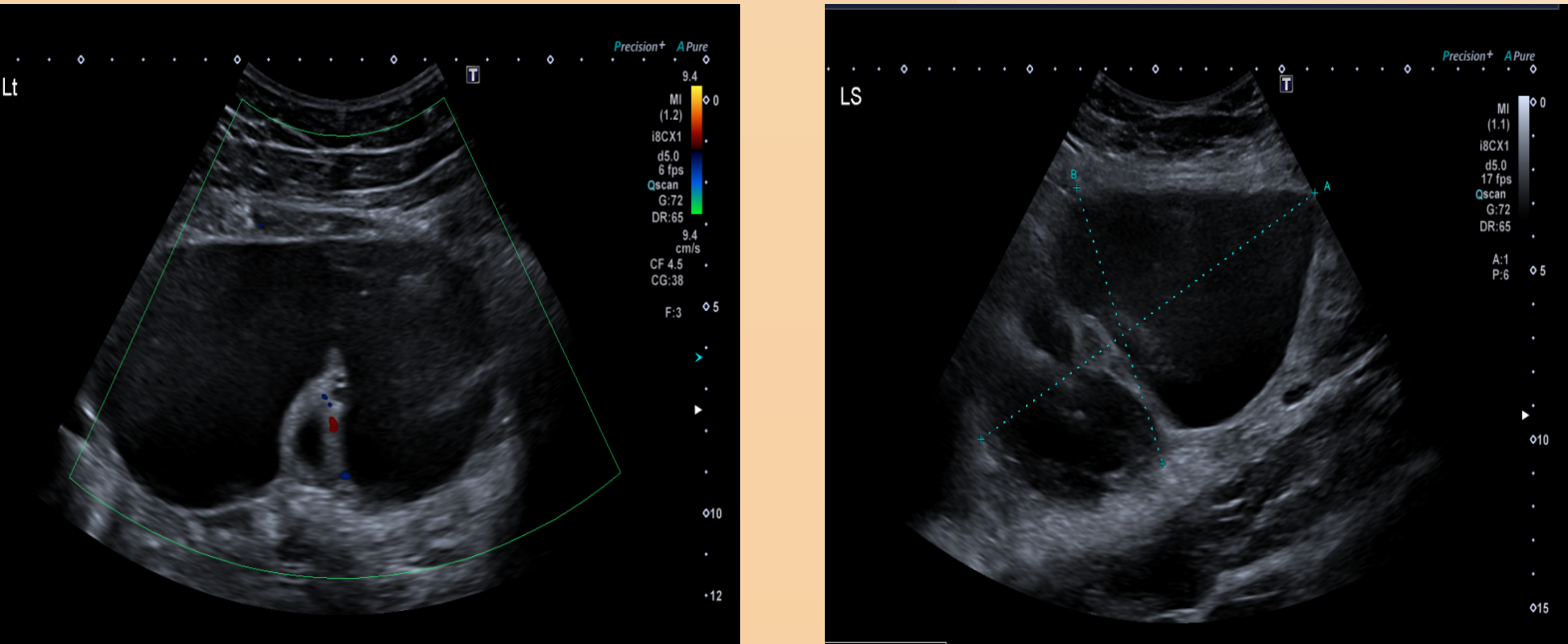


Figure 1: Ultrasound at 11 weeks gestation showing a large left adnexal complex mass.

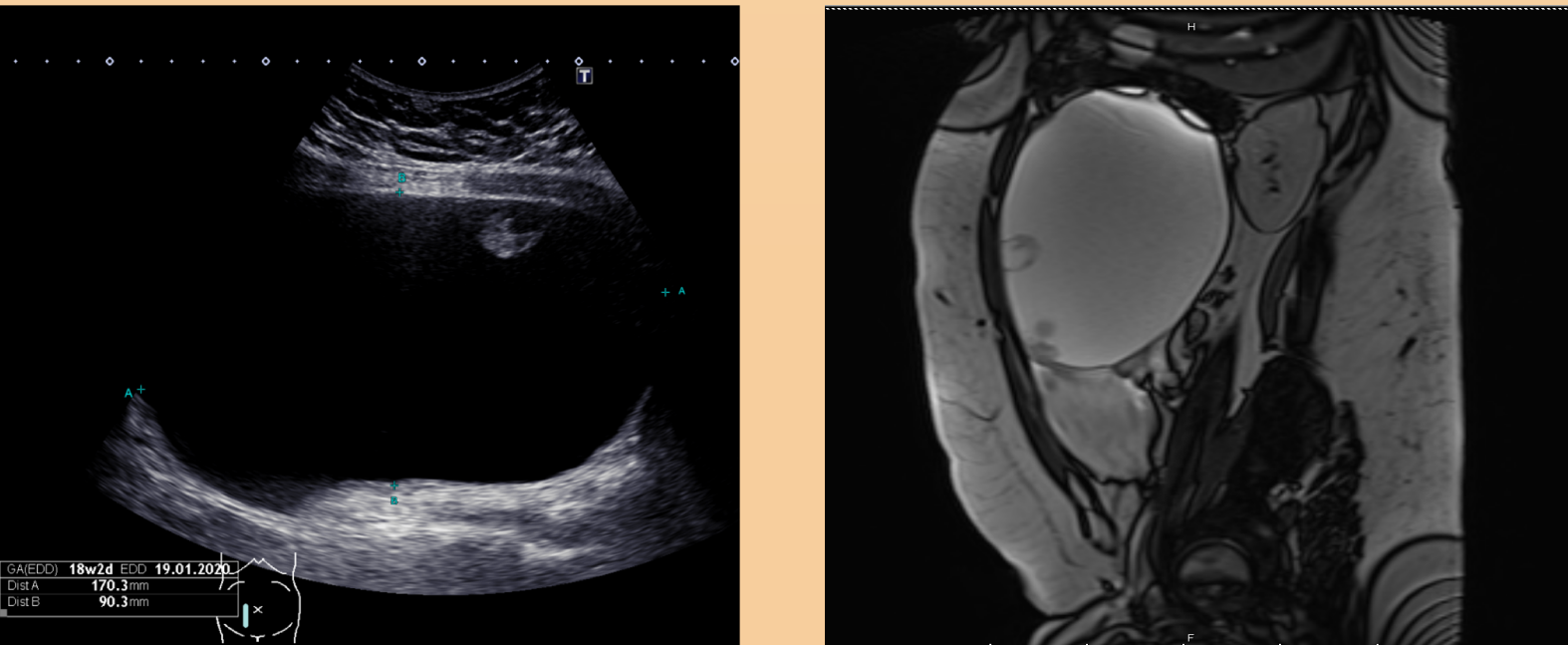


Figure 2: Left: Ultrasound at 11 weeks gestation showing a large cystic mass with a solid nodule. Right: MRI coronal T2 image at 20 weeks gestation showing 2 solid nodules within the mass.

Case Presentation

- Case 1:** 31 year-old in her first pregnancy, diagnosed with a large left complex adnexal cyst at 11 weeks gestation (Figure 1). MRI at 15 weeks showed a 10 × 6 × 9.4 cm complex septated ovarian mass. Midline laparotomy and left salpingo-oophorectomy were performed at 18 weeks. Histopathology revealed a luteoma of pregnancy. After an uneventful pregnancy, the patient delivered by caesarean section at term.
- Case 2:** 31 year-old found to have a large right adnexal cyst with a 1.5 cm solid nodule on ultrasound at 11 weeks gestation. MRI at 20 weeks identified 2 solid nodules within a 16.4 × 9.6 × 16.5 cm mass (Figure 2). After detailed counseling, the patient opted for surgical excision during caesarean section, which was performed via a midline incision around 36 weeks, with right salpingo-oophorectomy after delivery of the baby. Histopathology reported an ovarian mucinous adenocarcinoma with expansile-type invasion. MDT decided for chemotherapy in view of inability to rule-out intra-operative spillage.
- Case 3:** 24 year-old found to have a large complex ovarian cyst on ultrasound (Figure 3). CT showed a 14cm complex cystic adnexal mass with malignant features. Awaiting MDT discussion, the patient conceived. She had a midline laparotomy at 14 weeks gestation and right ovarian cystectomy. Histopathology revealed a benign serous cystadenoma. The patient had an uneventful pregnancy and vaginal delivery.

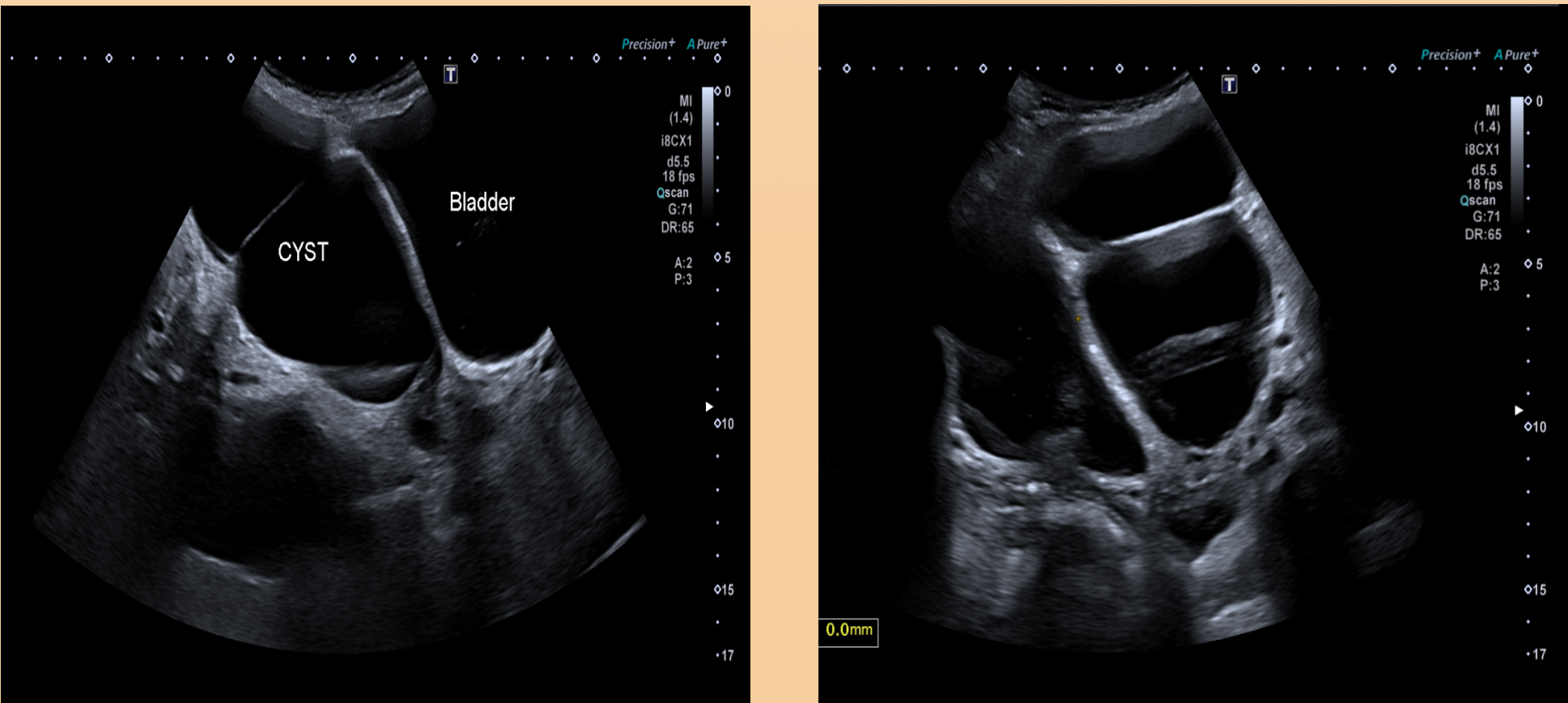


Figure 3: Ultrasound pre-conception showing a large left adnexal complex mass.

Discussion

- Differentiation between benign and malignant masses based on imaging may be challenging, and tumour markers (CA-125, AFP and β -hCG) are unreliable as they are physiologically elevated.
- Malignancy potential: 1% for simple cysts; 9% for complex masses.
- Besides their potential of malignancy, large/complex masses are less likely to resolve spontaneously and they present a risk of torsion, rupture or obstruction of labour.
- If symptomatic, surgery is advised.
- If US +/- MRI show features highly suspicious for malignancy (size > 5 cm, septations, thick wall, solid nodules, papillary projections or large amount of free fluid), surgery should be offered in the second trimester (15-20 weeks). The risk of miscarriage is low.
- If no suspicious imaging features, monitoring is advised after counseling on the risk of torsion (10%), rupture (2%), or malignancy (1–9%) with evaluation at caesarian section or after 6 weeks postpartum.
- US = imaging modality of choice. MRI adds value especially if (1) US is inconclusive, (2) the mass is very large, (3) risk of malignancy is high. Ionising radiation (CT) should be avoided unless benefits >> risks.

Conclusions & Recommendations

- Adnexal masses in pregnancy, often incidentally detected on dating ultrasound scans, present multiple challenges.
- An individualised approach taking into account symptoms, the nature of the cyst, and MDT and the patient's decisions, is essential for tailoring the most appropriate management plan.
- Radiology (US +/- MRI) plays a crucial role in guiding the decision-making process.

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