

LAPAROSCOPIC SALPINGO-OOPHORECTOMY IN THE THIRD TRIMESTER FOR OVARIAN TORSION

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INTRODUCTION

Ovarian torsion in the third trimester is rare and presents a dilemma of diagnosis and surgical management. Further, the management of known adnexal cysts in pregnancy is debated in the literature. Presently, no standardised Australian guidelines exist to guide clinicians.

CASE SUMMARY

We report a case of laparoscopic management of ovarian torsion in the third trimester of pregnancy, in the context of a known adnexal mass. A 34-year-old female, G4P1 at 30+5 weeks pregnant presented with recurrent left sided abdominal pain and a 10x9cm dermoid cyst. Previous presentations for this pain were managed conservatively. The dermoid cyst was first identified on the left ovary on the dating ultrasound scan at 6 weeks gestation, measuring 104 x 89 x 78 mm. Having had a previous caesarean section with her first pregnancy, the patient was planned for an elective repeat caesarean section and cystectomy at time of admission with acute abdominal pain.

In this acute presentation at 30+5/40, ultrasound findings suggested left ovarian torsion. This was managed surgically, with a laparoscopic left salpingo-oophorectomy (LSO) under general anesthetic. The left ovary was necrotic and enlarged (12cm), deeply impacted in the Pouch of Douglas with surrounding adhesions. (Figure 1)

Access to the ovary was challenging, given the gravid uterus, cyst size, adhesions and necrotic tissue. Laparoscopic port-site placement included: Palmer's point 10mm port entry; 2x 5mm ports at Jain point and Lee Huang point for optimal operative access into the left adnexa

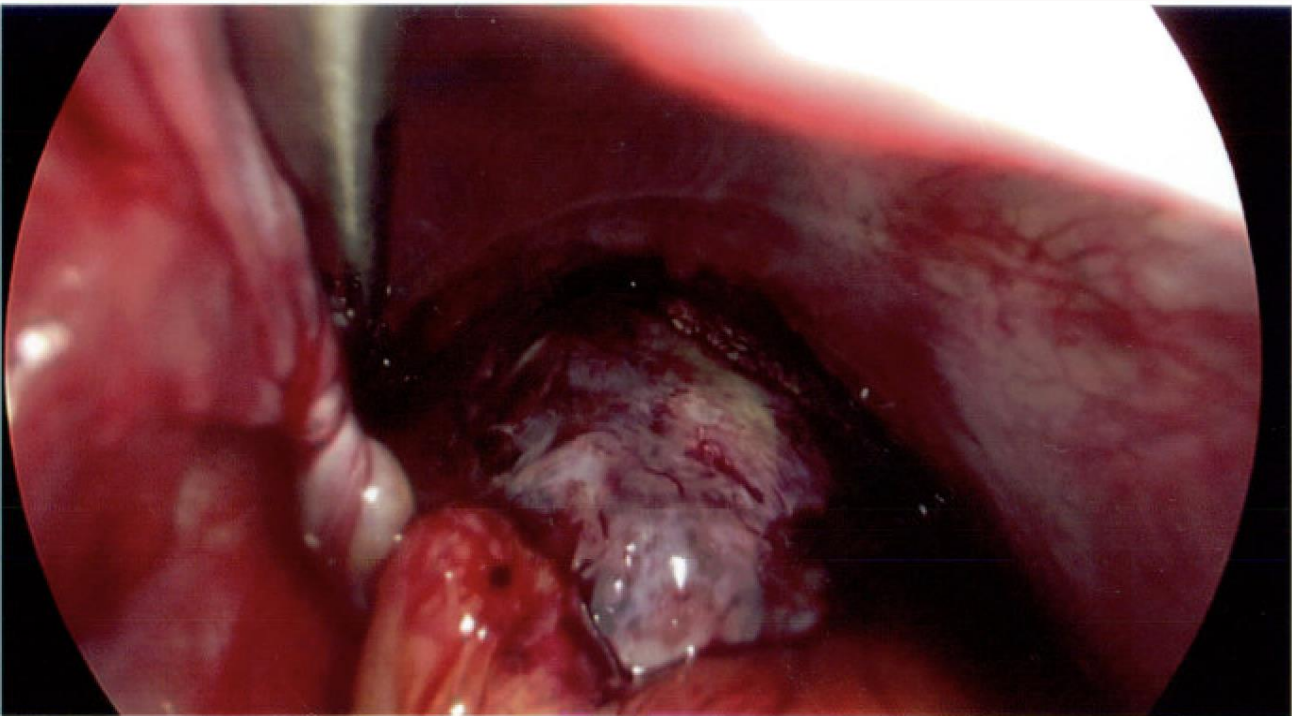


Figure 1: Intraoperative Photography of Torted Left Ovary and Cyst

A larger 15mm port was later inserted at Lee Huang point for specimen removal with an EndoCatch system.

The patient received steroid loading and nifedipine tocolysis post-procedure, given perceived risk of pre-term labour due to chemical peritonitis secondary to cyst sebum spillage intraoperatively. There were no significant complications for the remainder of the pregnancy. Delivery occurred at term via an uncomplicated elective caesarean section. Histopathology confirmed a normal fallopian tube and an infarcted dermoid cyst.

DISCUSSION

Management of known adnexal masses in pregnancy can be challenging. Considerations include patient symptoms; type and size of the mass; degree of suspicion for malignancy; operative risk at the current gestation; and risk of ovarian torsion if managed conservatively¹.

Given the frequency of ultrasound assessment during pregnancy, an incidental finding of an asymptomatic adnexal mass is not uncommon. Ultrasound and MRI are useful for assessing masses, including suspicion for malignancy.

It is generally agreed that tumour markers are of minimal yield in a pregnant patient¹. Most adnexal masses identified in pregnancy are dermoid cysts². Due largely to the age cohort of pregnant patients, malignancy is rare ²⁻⁴, with those that are diagnosed often low-grade or early stage with good maternal and neonatal outcomes ^{3, 5}.

Expectant management is suitable for the vast proportion of patients with a benign adnexal mass, given the likelihood of spontaneous resolution in the second trimester for small physiological cysts⁴. Larger masses, however, pose a risk of ovarian torsion during the pregnancy. Ovarian torsion is defined as partial or complete torsion of the ovary and usually fallopian tube, on its vascular pedicle, resulting in a restriction of blood flow to ovarian tissue, risking irreversible tissue loss. Pregnancy alone increases risk of ovarian torsion, as well as cyst size between 6-10cm⁶, prior pelvic surgery and developmental anatomical variation ^{6,7}.

Retrospective institutional reviews have examined the feasibility and safety of elective laparoscopy in the early second trimester for women with known large (>5cm) ovarian cysts^{8,9}. These data sets suggest that for most women, elective laparoscopy for a known mass results in uncomplicated term delivery and good neonatal outcomes. Challengingly for clinicians, there appears to be few reported predictors of which patients with masses >5cm will experience ovarian torsion during pregnancy.

Scope for future research could include examining the number needed to treat for elective laparoscopy in the second trimester to prevent ovarian torsion events, to guide recommendations for public health systems, and minimize unnecessary surgical risk in a pregnant population.

As pregnancy progresses, laparoscopy becomes increasingly challenging around a gravid uterus, increasing risk of conversion to laparotomy. Surgical access in our case required use of port sites at Lee Huang and Jain points, following a Palmer's point entry into the abdomen (Figure 2).

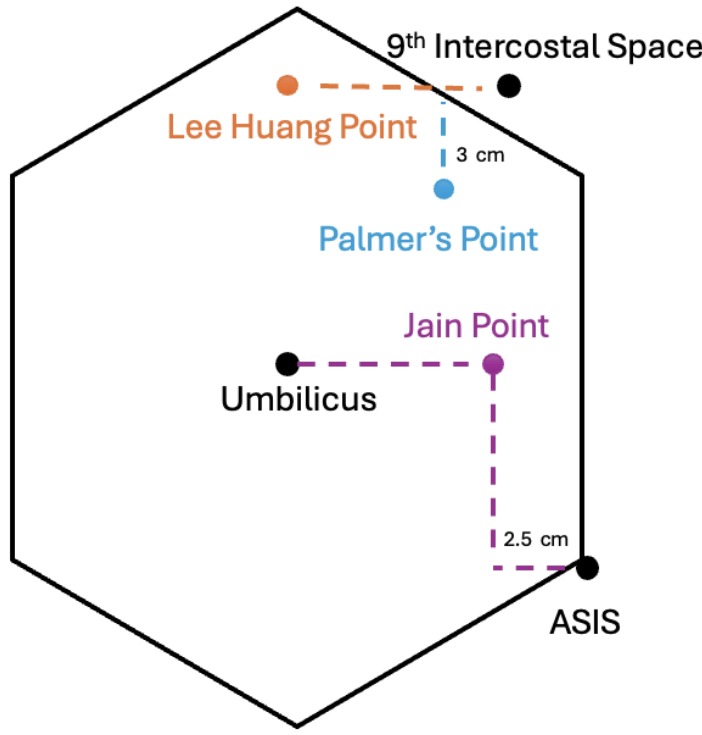


Figure 2: Schematic of Port Sites Used

CONCLUSION

Adnexal masses in pregnancy are often small and asymptomatic. Those that are large, morphologically complex, or symptomatic with pain – pose a dilemma for the clinician between elective laparoscopic management in the second trimester, and expectant management during the pregnancy. Ovarian torsion is unlikely, however laparoscopic management becomes increasingly challenging as the pregnancy progresses. In the third trimester, alternative port site placement at the time of surgery requires consideration for adequate access to the pelvis.

AUTHOR AFFILIATIONS

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