

Ovarian torsion presenting in the third trimester; when to intervene?

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Background

Adnexal masses in pregnancy are common, with a prevalence of 0.19–8.8%. Rates of spontaneous resolution are high. Surgical management is best undertaken around 14-16 weeks.

Ovarian torsion (OT) in pregnancy is rare with reported rates of 1-10 per 10,000 - it tends to be more common in the first and second trimesters.

This case reports a patient who presented with OT in the 3rd trimester, with the associated management challenges.

Antenatal care

The patient was 29 year old primigravida who was noted at booking to have hypothyroidism and asthma and so was referred to antenatal clinic (ANC) for Consultant-led care. A simple ovarian cyst measuring 11x5.5x11cm was noted at her first trimester scan, this was asymptomatic other than some mild tenderness.

She was not seen in ANC until 20 weeks (with 10cm cyst still present on scan – see figure 1). Surgical intervention was discussed, with the benefit of reducing the risk of torsion, but with the risk of fetal demise. The patient was concerned about the risks and opted for conservative management.

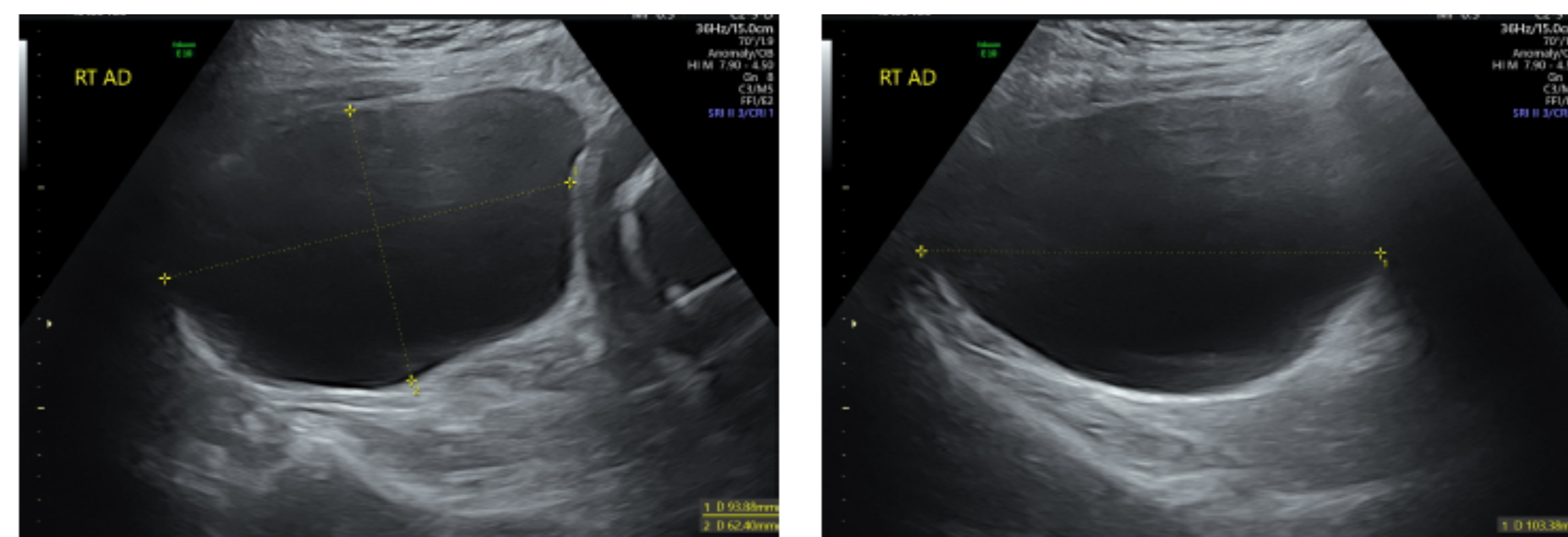


Figure 1: Ultrasound images of the right adnexa at 20 weeks

Emergency admissions and delivery

The patient contacted Maternity Triage at 34+3 with sudden severe right sided pain with associated nausea. An ultrasound scan demonstrated an unchanged cyst with no obvious signs of torsion and no other obvious intra-abdominal cause. The pain appeared to be separate to the cyst location on ultrasound. Bloods were normal. Conservative management with analgesia was undertaken, the pain improved and she went home the next day.

She contacted Triage again at 35+4 with a further increase in pain, worse than before. This time her inflammatory markers were raised - CRP 61 and WCC 16.8. She was reviewed by a Consultant the following morning with a CRP now of 127 – it was felt that this was very likely to represent OT with a risk of sepsis, pre-term birth and loss of her ovary if it were left untreated. She was given steroids for fetal optimisation and delivered by category 3 caesarean section.

Operation - Routine caesarean section. Right ovary and tube torted with 10cm simple ovarian cyst, pedicle twisted x3. Fimbrial end adherent to surface of ovary. Left fallopian tube & ovary completely healthy. De-torsion and ovarian cystectomy performed. Evidence of re-perfusion to ovary evident.

Discussion

Lots of senior level discussion happened around the best management for this case when she first presented. OT formed part of the differential, but the suggested management was laparotomy and oophorectomy; cystectomy posed too high a risk of re-laparotomy (due to bleeding), and the incision would not have healed by the time the patient reached term. Given that she would lose her ovary either way, and her pain had improved, conservative management continued.

When she re-presented, the diagnosis was very clear with pain resistant to opiates and raised inflammatory markers, and therefore the appropriate management much clearer.

Conclusion

This was a rare and interesting case of OT in the third trimester that posed both diagnostic and management challenges. We plan to write a clear guideline for the management of ovarian cysts in pregnancy >5cm, with a Consultant review at 14-16 weeks to discuss surgical management (as this patient was not seen until 20 weeks when the risks were higher).

References

1. Alalade, AO, Maraj, H. Management of adnexal masses in pregnancy. *The Obstetrician & Gynaecologist*. 2017; 19: 317– 25. DOI: [10.1111/tog.12417](https://doi.org/10.1111/tog.12417)