

A Case Series of Ovarian Torsion in Later Pregnancy

Hampshire Hospital Foundation Trust

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Introduction and objectives

- Ovarian torsion in pregnancy has an incidence of 1-10 in 10,000 pregnancies (1).
- Only 5.9 -10% in second half of pregnancy and presentation can be atypical (2,3).
- Time from admission to surgery is shorter in 1st trimester compared to the 2nd and 3rd trimester (3).
- We present four cases, after 20 weeks gestation, which occurred in once trust, over 12 months (2020 – 2021).

Case 1

40 y.o multip 31+3 PC: Intermittent RIF pain and vomiting on a background of 5cm complex right ovarian cyst which had grown to 12cm during pregnancy. On examination she had RIF and renal angle tenderness, no peritonism. Her vitals were normal and USS demonstrated no change from previous, with normal blood flow in the ovary. She was admitted for steroids, observation and analgesia. Throughout admission, pain was intermittent, so she was NBM on and off. On day 4 her bloods became abnormal (CRP; 10 → 129). The decision was made for a laparotomy + right salpingo-oophorectomy + left salpingectomy (for sterilisation, this was discussed prior) + delivery of infant

USS day 1: 12.8cm right multiloculated adnexal cyst 12.8cm.

Operation findings:

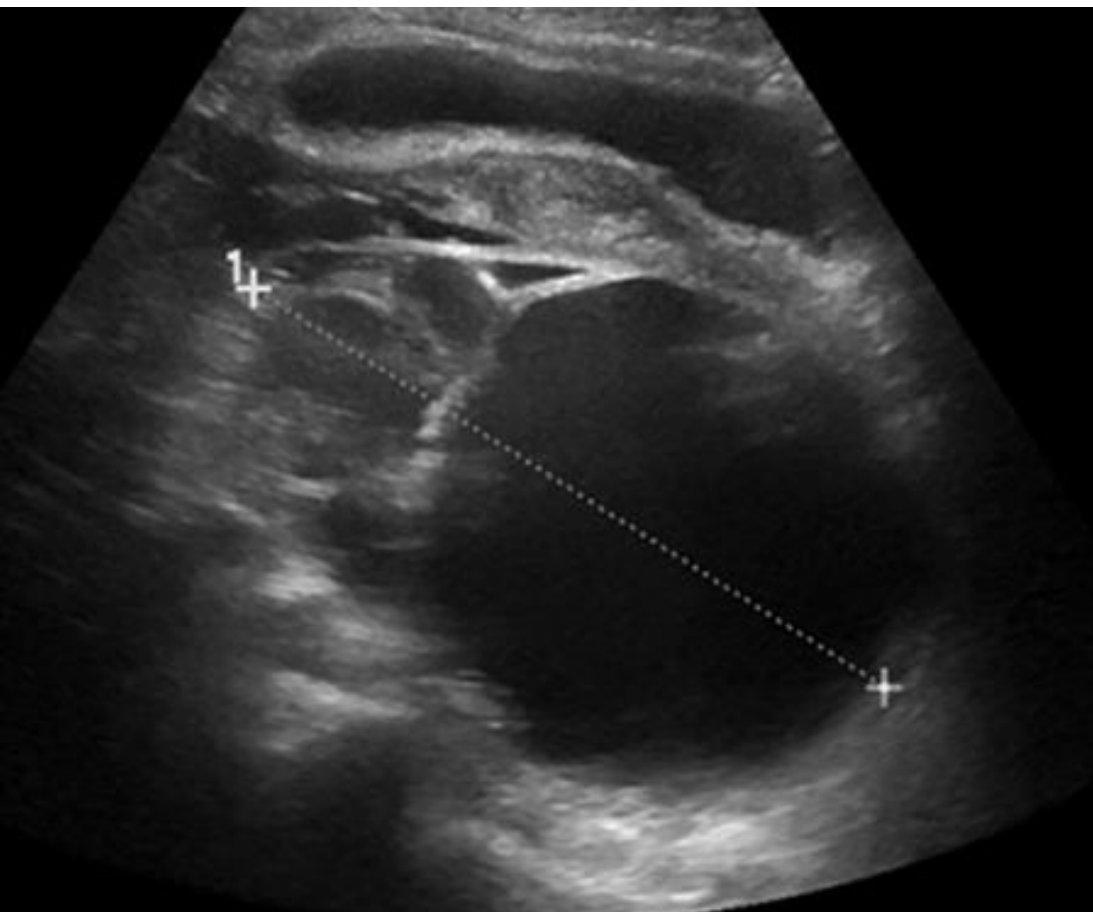
12cm right cyst. Right ovary torsed 3x. Oedematous and necrotic ovary and salpinx.

Histology:

Infarcted endometrioid cyst.

Pregnancy outcome:

32+0- during laparotomy VBG showed euglycemic ketoacidosis, pH 7.22. Infant delivered, went to neonatal ICU, weight 1.9kg. Mother went to ICU post-op, to resolve acidosis.



Case 2

28y.o Primip, 30+2 PC: Intermittent right flank pain and nausea. Her pain had resolved when reviewed with a SNT abdomen. She was discharged with Cefalexin as her urine showed leucocytes. 2 days later she re-presented with worsening pain. Her vitals and bloods were normal. On examination she had right renal angle tenderness, no peritonism. She was admitted for IV antibiotics and analgesia. She then vomited on day 3. Pelvic and renal USS were normal and pain improved so she was discharged on day 4. She re-presented on day 5 with exacerbation of pain and was peritonitic. Bloods showed CRP of 129. MRI showed potential appendicitis. On day 6 she had a laparotomy + detorsion of ovary and salpinx + ovarian cystectomy.

MRI day 5: Inflammatory features consistent with appendicitis (no appendix seen).

Operation findings:

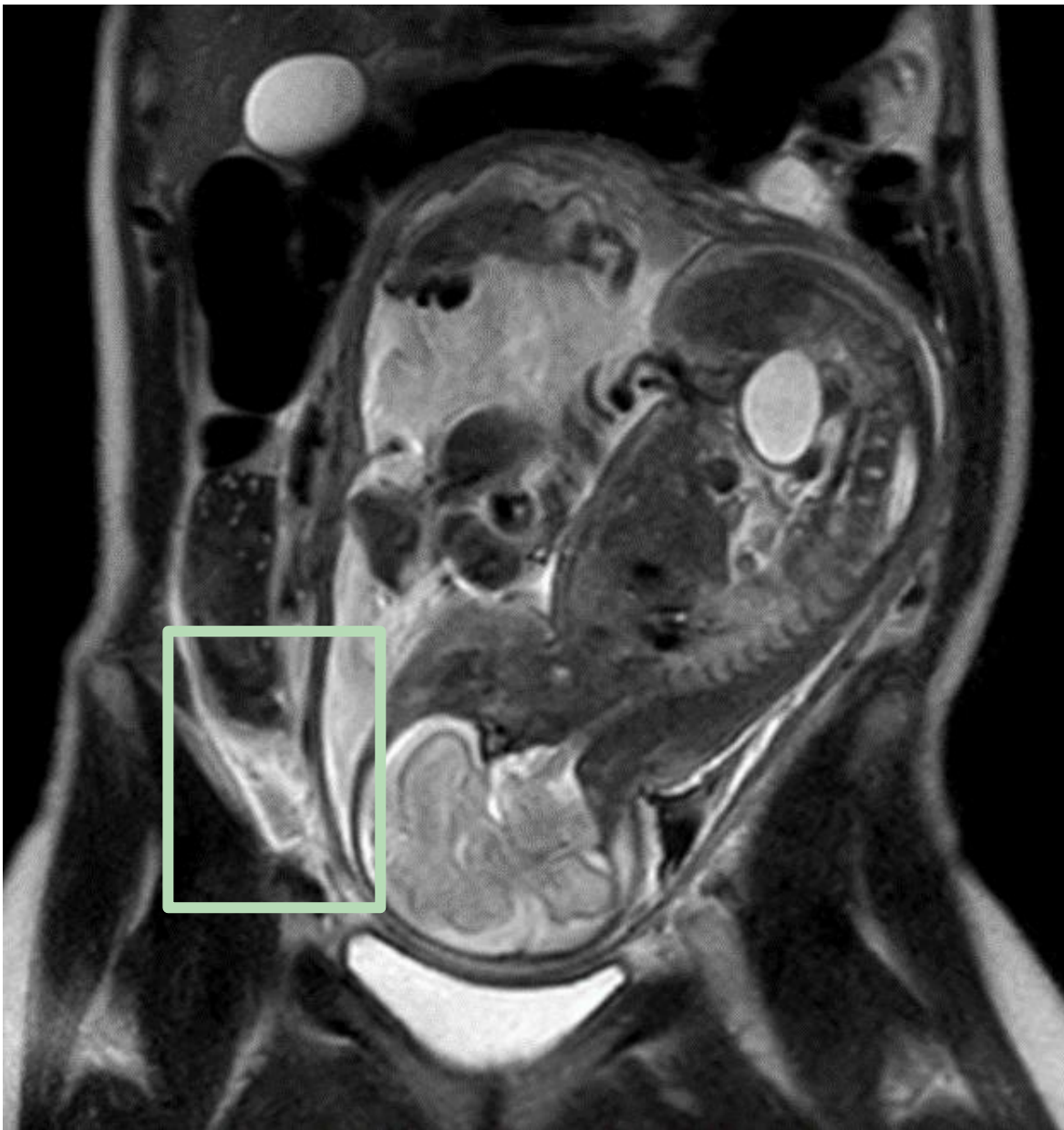
Torted right ovary and salpinx and 'large' haemorrhagic corpus luteum. Viable tissue showed signs of reperfusion.

Histology:

Haemorrhagic infarction.

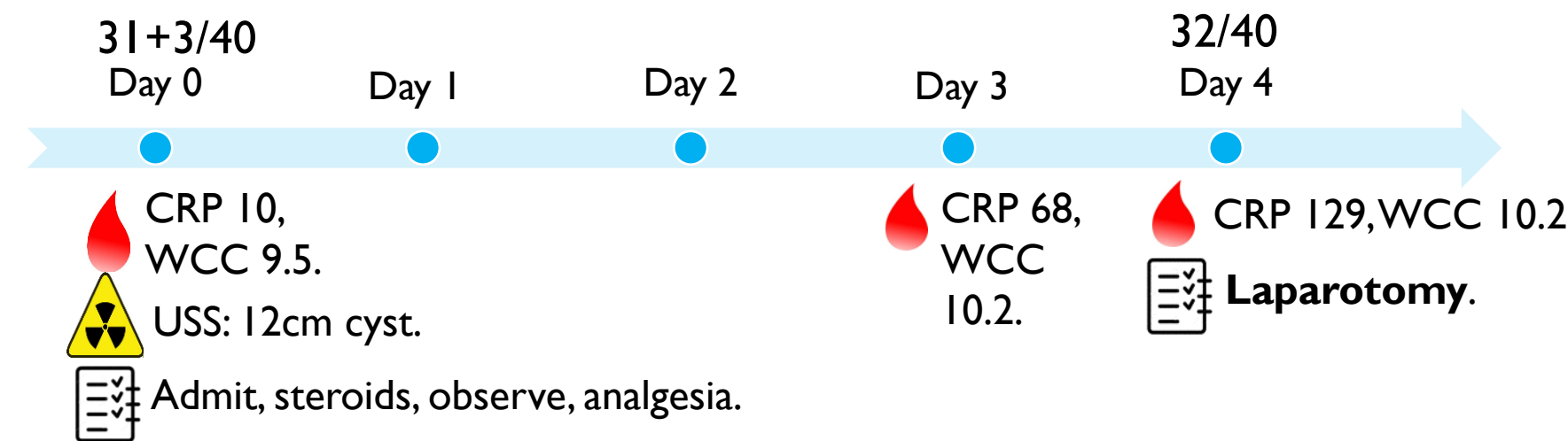
Pregnancy outcome:

Elective caesarean section at 39/40. Infant in good condition, 3.3kg.

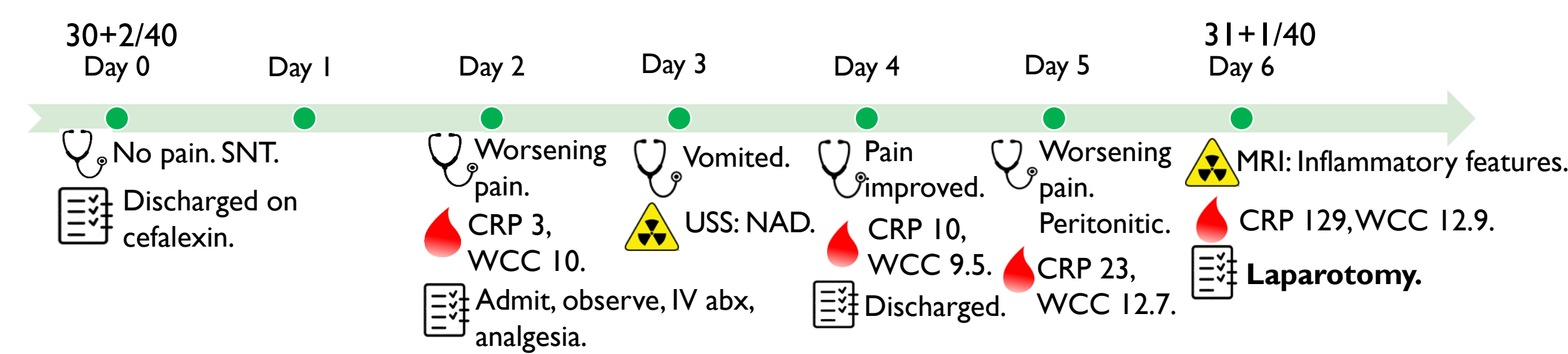


Timelines

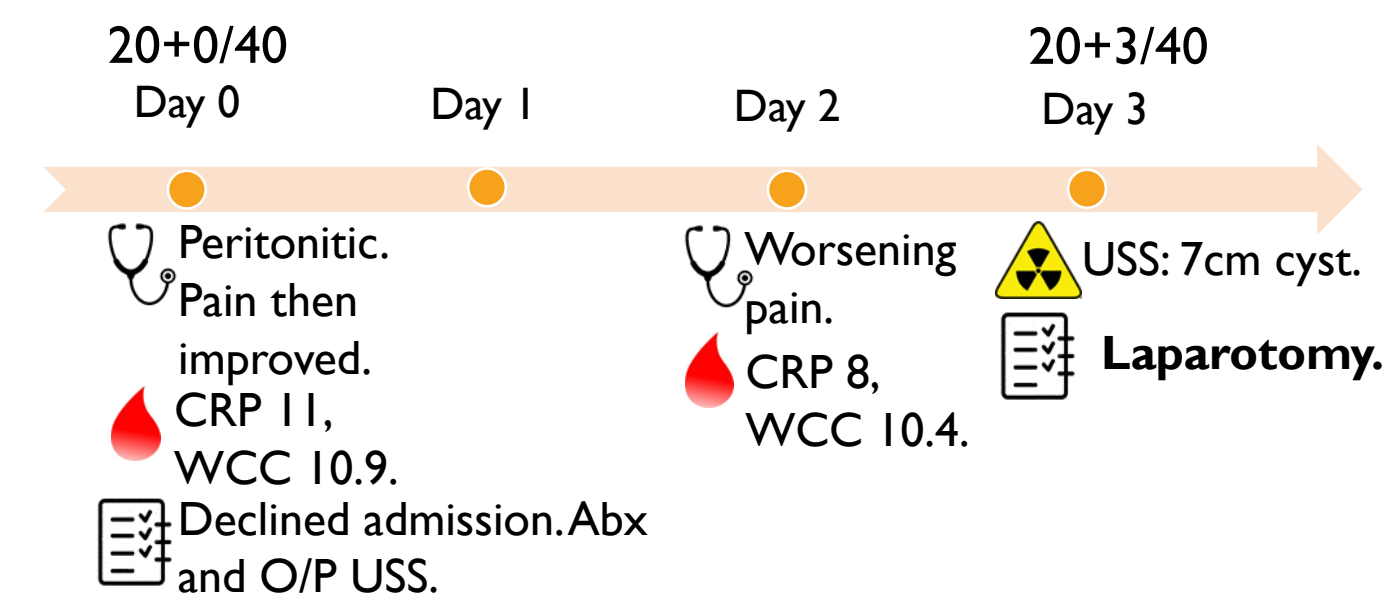
Case 1



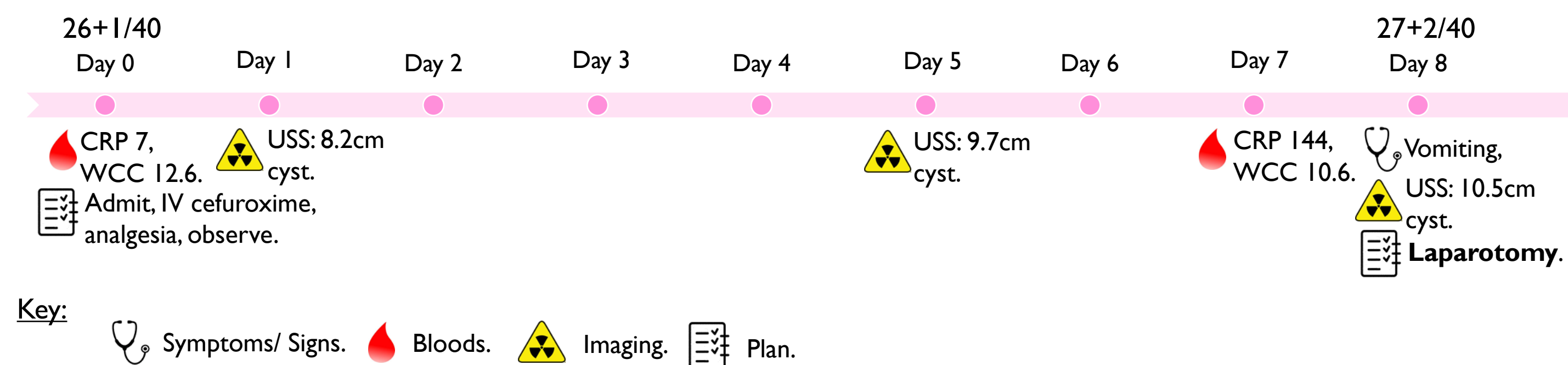
Case 2



Case 3



Case 4

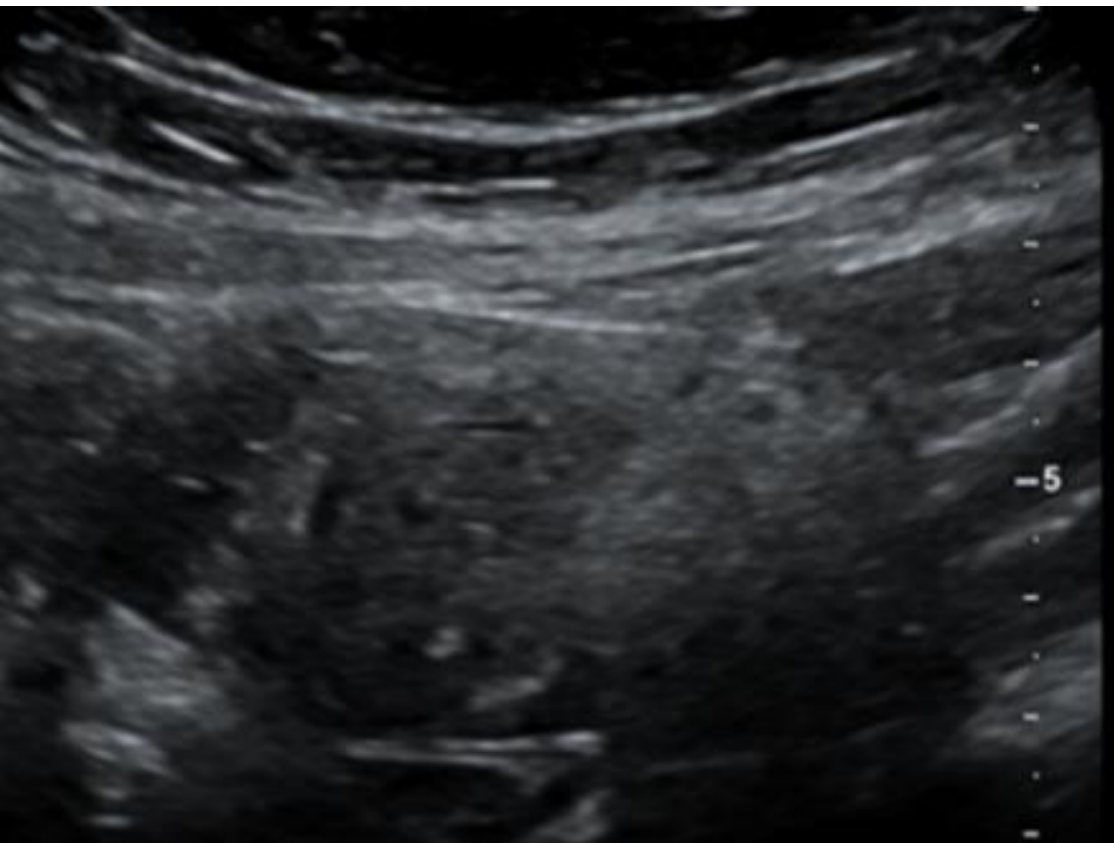


References

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Case 3

28 y.o primip. 20/40. PC: acute severe intermittent LIF pain and dysuria with no vomiting. On examination, LIF peritonism. Her vitals and bloods were normal. She declined admission and was treated for a UTI. She re-presented 2 days later with worsening pain. USS showed an ovarian cyst. On day 3, she had a laparotomy + de-torsion + left ovarian cystectomy.



USS day 3: 7x4cm left ovarian cyst with minimal blood flow

Operation findings:

8cm left ovarian cyst. Single torsion. Healthy ovarian tissue.

Histology:

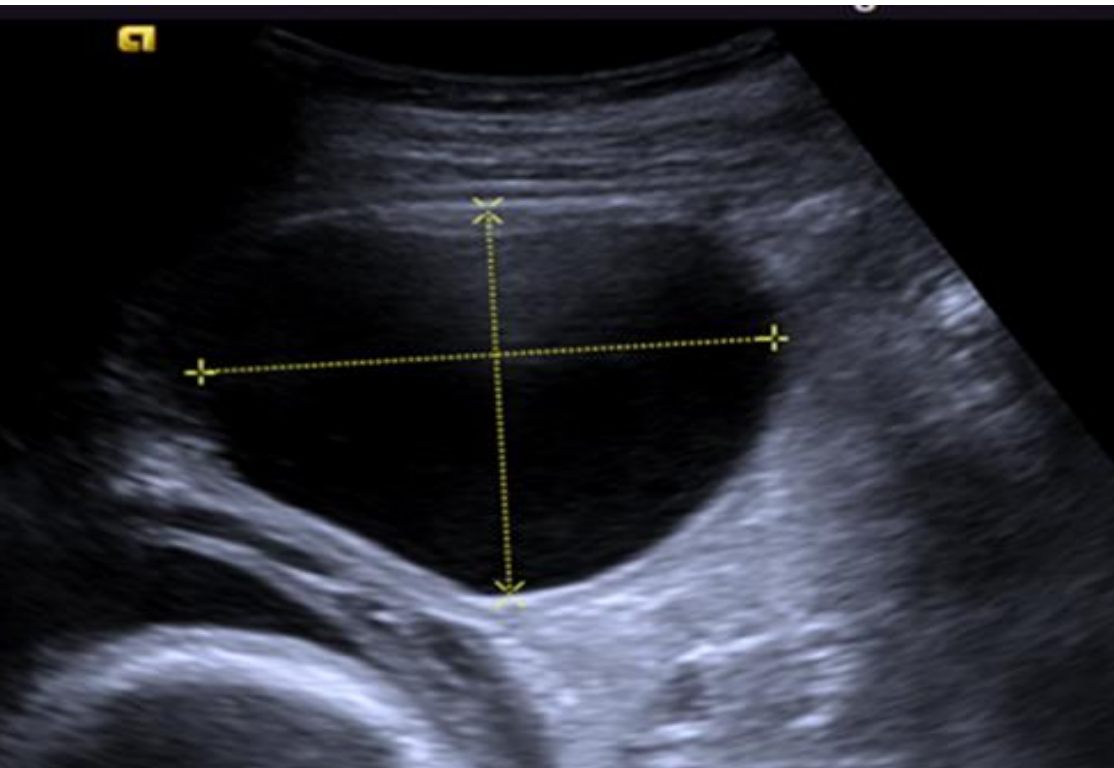
Mature cystic teratoma (dermoid).

Outcome:

38+3 – growth scan for reduced FMs.
38+6 – Induction of labour for growth <10th %.
39+1 – Ventouse delivery. Infant in good condition, 2.9kg.

Case 4

27y.o Primip. 26+1 PC: severe left flank pain and dysuria on a background of a 13cm simple left cyst. On examination, LIF and renal angle tenderness, no peritonism. Her vitals and bloods were normal, so she was admitted for observation, analgesia and IV cefuroxime. Throughout her admission her pain was intermittent and not severe. Her CRP rose to 144 (from 7) on day 7. She vomited on day 8 hence she then had a laparotomy + left oophorectomy.



USS day 1, 5 & 8: 8cm-10.5cm, simple cyst

Operation findings:

10cm torsed necrotic left ovary.

Histology:

Benign mucinous cystadenoma with haemorrhagic infarction.

Outcome:

Elective caesarean section at 38+2/40. Infant delivered in good condition, 3.33kg.

Discussion

- Due to atypical symptoms, **intermittent** pain and **normal bloods** and imaging at presentation, there was delay in surgical intervention ranging from 3 – 8 days.
- Displaced organs by a gravid uterus can make pain atypical, peritonism less likely (35% in pregnancy, 0% in 3rd trimester) and USS less sensitive (only 40% have signs of torsion) (2-4).
- 95% present with pelvic pain, 58% nausea and vomiting. 95% have an adnexal mass on investigation (2,3).
- Repeated torsion is more common in pregnancy (14% vs 4%) (5).
- None of these cases had a significantly raised WCC however 3 had a **delayed** CRP rise (day 4-6).
- Time from admission to surgery is longer in late pregnancy, perhaps indicating the hesitancy to operate (3). However laparotomy is safe to perform in late pregnancy for both mother and baby (2).

Conclusion

This should raise awareness for atypical presentation of ovarian torsion in late pregnancy, to prevent a delay in surgical intervention and prevent adverse outcomes.