Laparoscopic detorsion of ovarian cyst in third trimester : Case report

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BACKGROUND

Ovarian torsion during pregnancy is one of the causes of acute abdomen during the first and second trimester of pregnancy. The incidence of ovarian torsion during pregnancy is about 5 in 10,000, and The risk of ovarian torsion rises by 5-fold during pregnancy. Although ovarian torsion is very rare especially in third trimester, it is related to high maternal morbidity and fetal mortality if not immediately treated.

CASE PRESENTATION

A 34-year-old primigravida at 31 weeks and 6 days of gestation visited the emergency department due to left lower quadrant (LLQ) pain. She described cyclic pain that lasted for 2 days and progressed more severely. On physical examination, there was remarkable LLQ tenderness but no rebound tenderness. The vital sign was stable. Ultrasound showed 4.0×2.4cm sized heterogenous mass at enlarged left ovary (LO) (Fig. 1). She described severe abdominal tenderness when transducer was placed at the site of LO. Magnetic resonance imaging (MRI) scan showed about 2.7cm sized T1 and T2 high signal cystic lesion in LO which implies hemorrhagic cyst. We suspected ovarian torsion as a likely diagnosis, so laparoscopic exploration was performed.

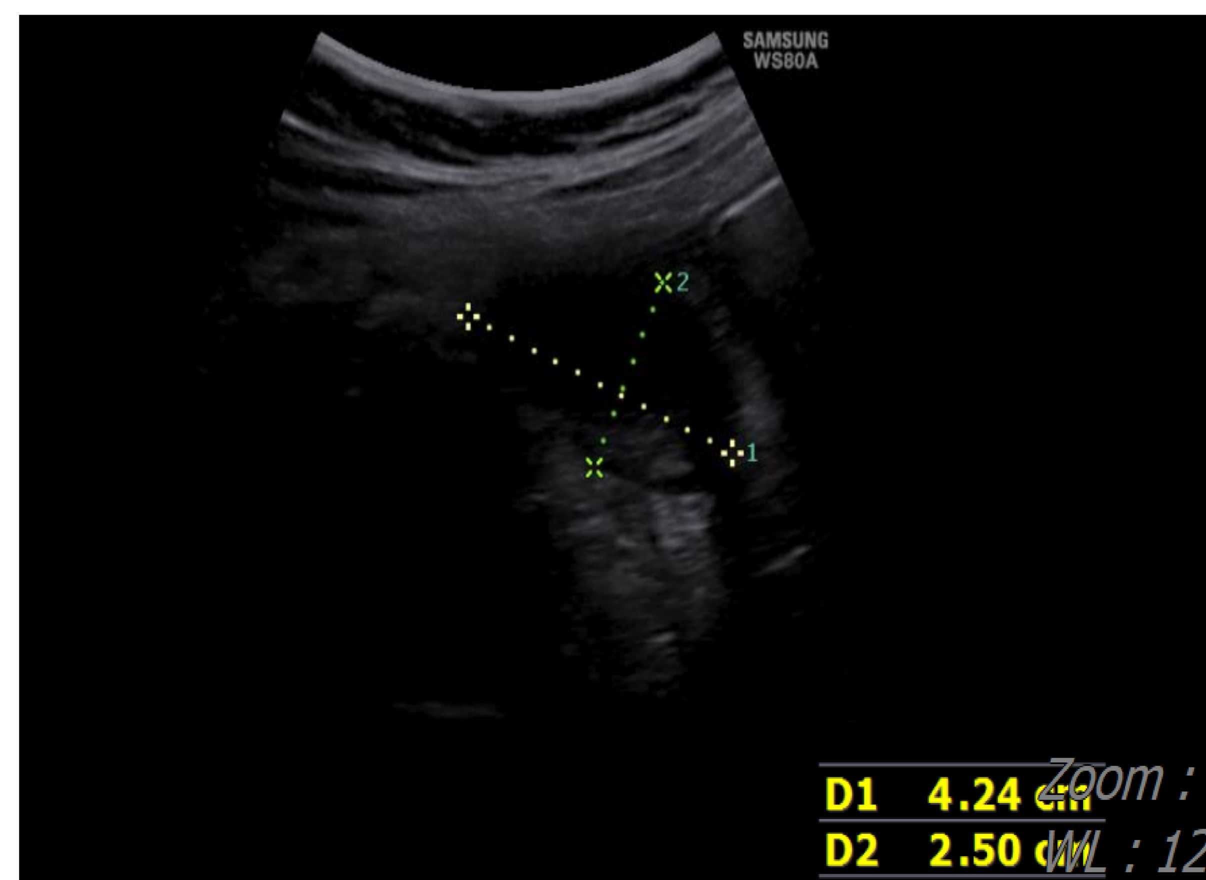

Figure 1. Ultrasonography image of the patient, 4.2*2.5cm sized heterogenous mass at the left ovary

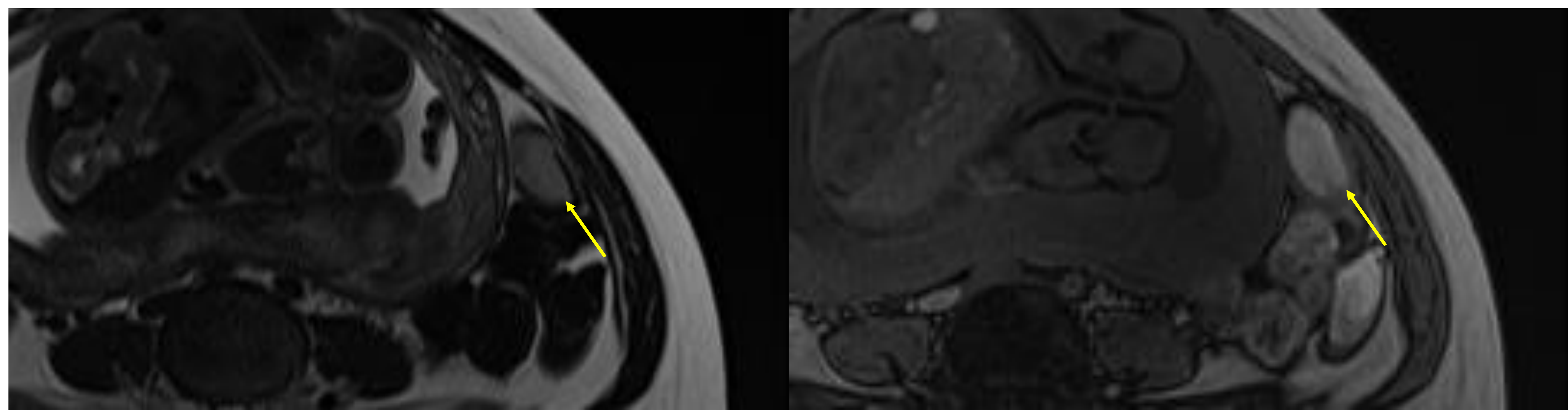

Figure 2. MRI image of pelvis, 2.7cm sized T1 and T2 high signal cystic lesion

TREATMENT

Laparoscopic camera was inserted at 'Lee-Huang point' which placed between xyphoid process and umbilicus, and the first ancillary port was inserted at 'Palmer's point' which placed at left upper quadrant, below left costal margin (Fig. 3). During the surgery, LO was twisted and had necrotic lesion with 3cm sized old hemorrhagic cyst (Fig. 4). Laparoscopic detorsion of LO and the resection of left ovarian cyst and necrotic lesion was done. The pathology of ovarian cyst was necro-degenerative cyst. She discharged after surgery without complication.

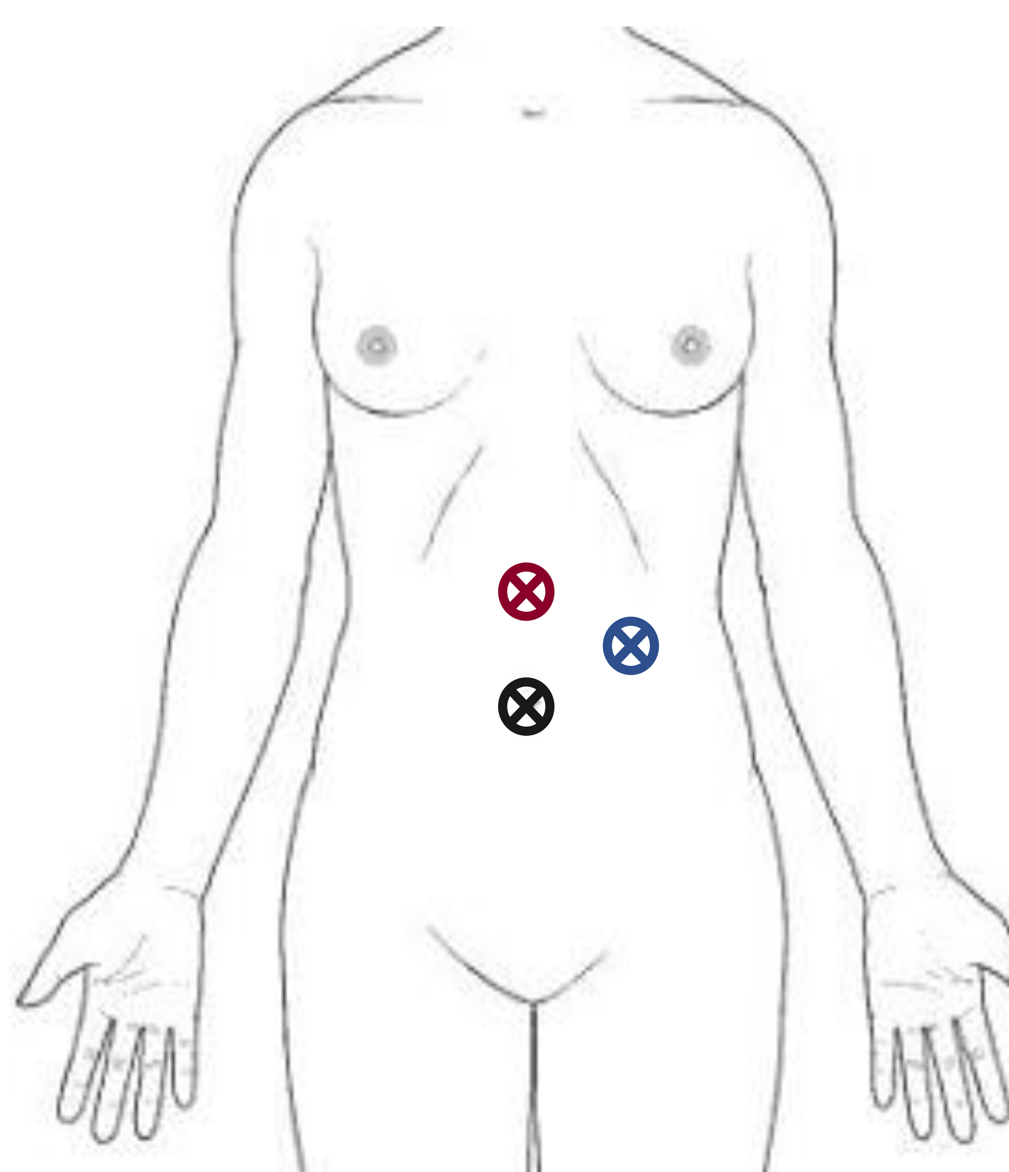

Figure 3. Troca insertion site of laparoscopic operation, 'Lee Huang point'(red), 'Plamer point'(blue) and umbilicus(black)

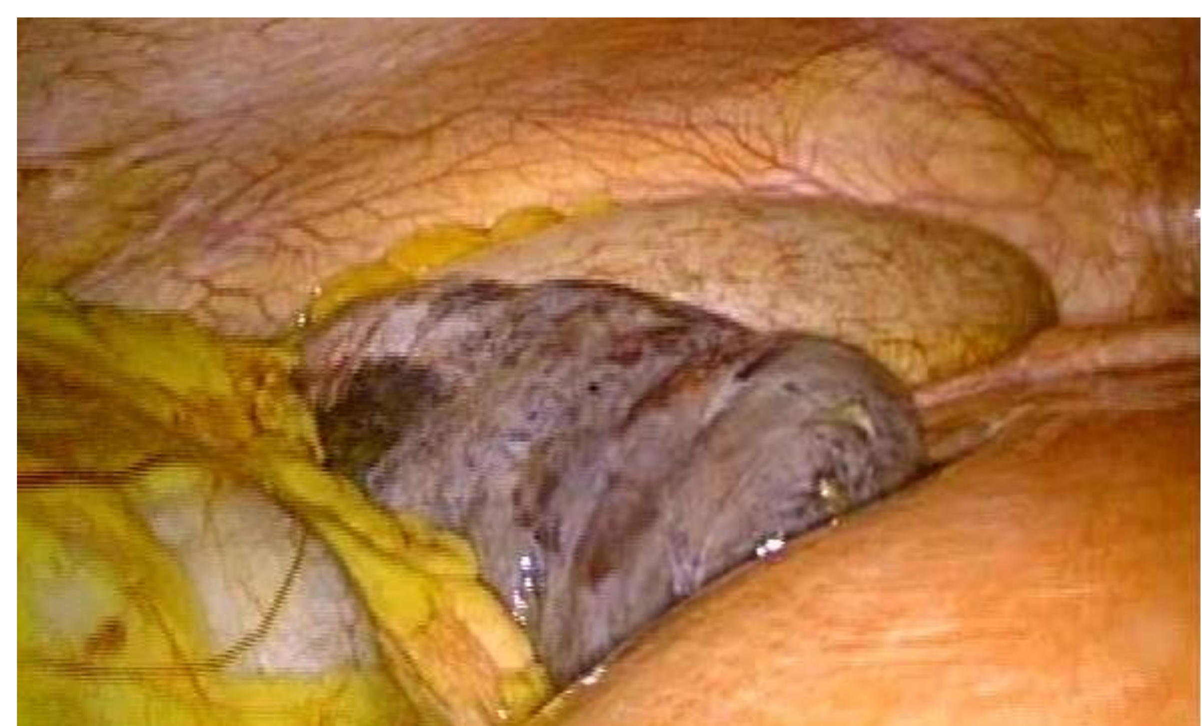

Figure 4. Left ovarian hemorrhagic cyst with necrotic lesion (during laparsocpic exploration)

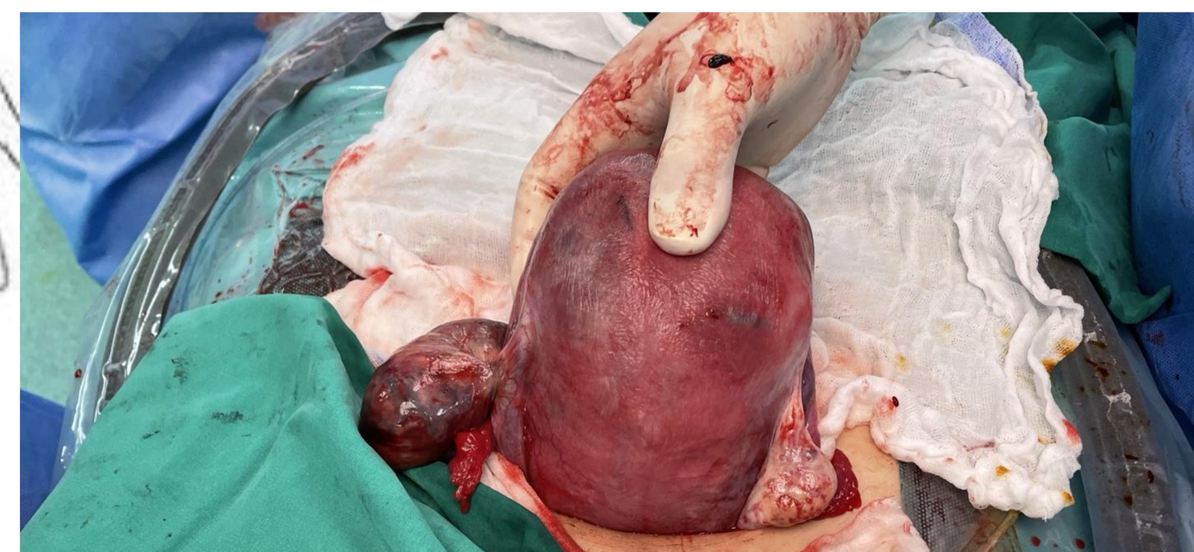

Figure 5. Left ovary (during cesarean section)

OUTCOMES & FOLLOW UP

At 34 weeks and 5 days of gestation, she delivered a 2.1 kg male baby with emergent cesarean section due to preterm labor with non-reassuring fetal heartbeat. One-minute Apgar score 5 and five-minute Apgar score was 8. To avoid recurrent ovarian torsion, left ooporexy was performed. There was no complication after cesarean delivery.

DISCUSSION

Ovarian torsion usually occurs in the first and early second trimester and very rare in the third trimester. Also, it is usually associated with the ovarian cystic mass over 5cm or ovarian hyperstimulation. Left ovarian torsion is even rarer. Even if the clinical situation is not typical as mentioned, clinical symptoms strongly suggestive of ovarian torsion such as cyclic pain or pain at the location of ovary on ultrasound should not be neglected. In addition, an edematous and enlarged ovary could be another hint of atypical ovarian torsion like in current case. Of note, laparoscopic approach would be a useful option even during the third trimester. To avoid uterine injury, trocar insertion site at 'Lee-Huang point' and 'Palmer's point' should be considered at a late pregnancy.

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