Case	(108) Acute abdomen in pregnancy; ovarian torsion diagnosed as haemorrhagic cyst on ultrasonography: a case report.
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CASE PRESENTATION

A 26 year old primigravida (Para 0 + 0) at 25 weeks gestation presented with sudden severe right paraumblical pain, fever and vomiting to the emergency unit. Previous history of intermittent lower abdominal pain was reported in this pregnancy at 1st and early 2nd trimester necessitating abdominal ultrasonography which revealed a right simple ovarian cyst on those occasions.

Physical signs included a uterine size of about 24-26weeks, marked tenderness and guarding in the right paraumblical region. She was referred to the radiology unit for emergency ultrasonography. Transabdominal ultrasonography revealed a single live intrauterine fetus at 25 weeks gestation. An enlarged ovary with a complex thick walled cyst (6.55cm x 4.71cm) displaced superiorly towards the right upper quadrant adjacent the fundus of the uterus. Multiple echogenic strands giving a lace like pattern with low level internal echoes were noted within the cyst and no internal flow with Doppler.

However, the ovary showed some flow on Doppler with no demonstrable twisting of the adnexial pedicle or whirlpool sign. An ultrasound diagnosis of right haemorrhagic ovarian cyst was made. In less than 24hrs following ultrasonography, she had an emergency laparatomy with right salpingo-oophorectomy following intraoperative findings of torsion and ischaemia of the right fallopian tube and ovary with haemorrhagic right ovarian cyst (10 x 6cm). Postoperative period was uneventful.

Histological report was consistent with right ovarian haemorrhagic infarction on background follicular cyst.

DISCUSSION

Ovarian torsion is not an uncommon condition in pregnancy and may result from haemorrhage into a corpus luteal cyst, functional or follicular cyst.

Haemorrhagic cyst has been described as "the great imitator" or mimic of ovarian torsion.

Studies have shown that presence of flow on Doppler does not always rule out torsion just as seen in the index case. Also, the coexisting25 weeks gravid uterus may limit the demonstration of a twisted vascular pedicle, whirlpool sign of torsion on Doppler and even cause difficulty in visualizing the adnexium due to displacement by the uterus.

Untwisting of the vascular pedicle as at the time of ultrasound examination and its re-twisting (intermittent torsion) with subsequent adnexial infarction prior to surgery are possibilities in the index case.

CONCLUSION

Ultrasonographic findings of Haemorrhagic cyst and relatively normal Doppler with clinical presentation of acute abdomen in pregnancy should raise a suspicion of ovarian torsion warranting urgent surgical intervention to prevent adnexial infarction.

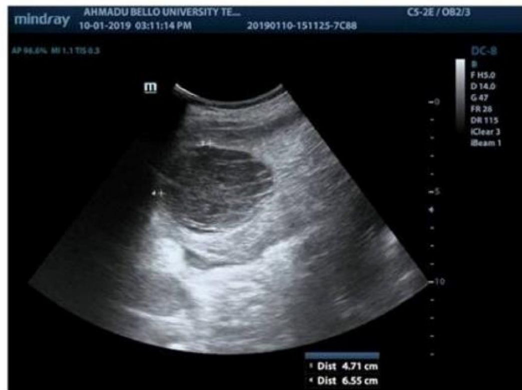

Fig.1. Transverse transabdominal ultrasound image depicting the lacelike reticular pattern of the right haemorrhagic ovarian cyst.

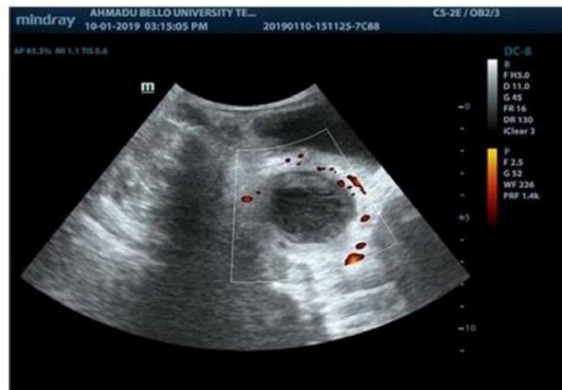

Fig.2. Longitudinal transabdominal power Doppler ultrasound image of the right haemorrhagic ovarian cyst depicting peripheral vascularity.

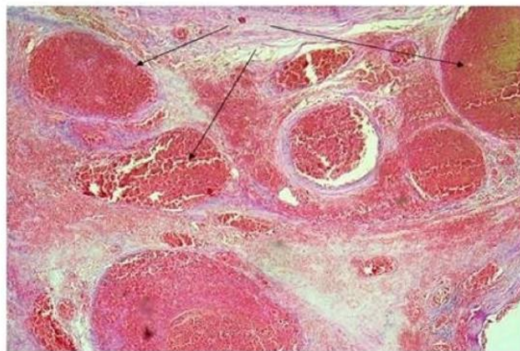

Fig.3. Histology micrograph from the ovary showing multiple cystic cavities filled with haemorrhagic material and devoid of a lining (arrows). H&E x 100

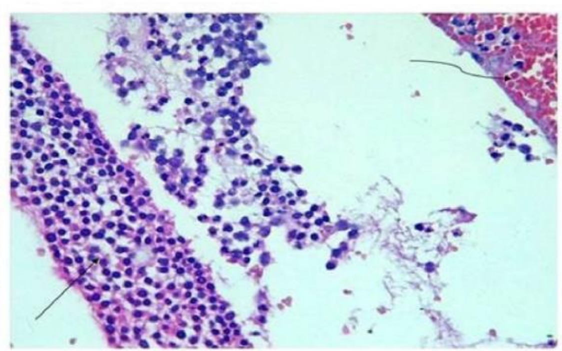

Fig.4. Histology micrograph shows one of the cysts lined by detached granulosa cells (arrows), the underlying stroma shows haemorrhage (curved arrow).

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