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CASE REPORT *GYNAECOLOGY*

Adnexal torsion during pregnancy: A rare case report

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ABSTRACT

Ovarian torsion during pregnancy is a gynecological emergency that carries a high risk of patient morbidity and can be fatal if not promptly treated. Surgical exploration is recommended regardless of gestational age. We present the case of a 33-year-old woman in her first trimester who presented with acute abdominal pain. Ultrasound revealed a left ovarian cyst with torsion. She was immediately taken for an emergency laparotomy, during which a left salpingo-oophorectomy was performed. Her postoperative recovery was uneventful.

Keywords: Cyst, Gangrenous, Pregnancy first trimester, Salpingo-oophorectomy, Torsion

INTRODUCTION

Ovarian torsion refers to the complete or partial twisting of the adnexa around its vascular axis or pedicle. While the exact cause is not well understood, common predisposing factors include the presence of a moderately sized cyst, free mobility of the ovary, and a long pedicle. Ovarian cysts are found in 0.2–2% of pregnancies and are typically small and asymptomatic, often resolving on their own before the end of the third trimester. However, in rare cases, the cyst may enlarge, twist, and lead to complications during pregnancy.

This case report describes a gangrenous, twisted cyst in the ovary in the first trimester of pregnancy.

CASE REPORT

A 33-year-old primigravida at 12 weeks of gestation presented to the outpatient department with complaints of sudden-onset, continuous pain in the left iliac fossa that was not relieved by medication and did not radiate. On examination, she was conscious and coherent, with a heart rate of 100 bpm, blood pressure of 110/70 mmHg, normal temperature, and unremarkable cardiovascular and respiratory systems. The patient was referred to the radiology department for an ultrasound of the abdomen and pelvis. Ultrasonography revealed a single live intrauterine pregnancy of approximately 12 weeks. The left ovary appeared bulky and diffusely hypoechoic, with peripherally placed follicles and absent stromal vascularity. A partially exophytic simple cyst measuring 4 × 3.5 cm was noted in the left ovary, as shown in Figure 1. These imaging features were suggestive of left ovarian torsion [Figure 2].

The patient was informed about her condition and, due to the emergency nature of the situation, underwent an immediate emergency laparotomy. During the surgery, the left ovary was found

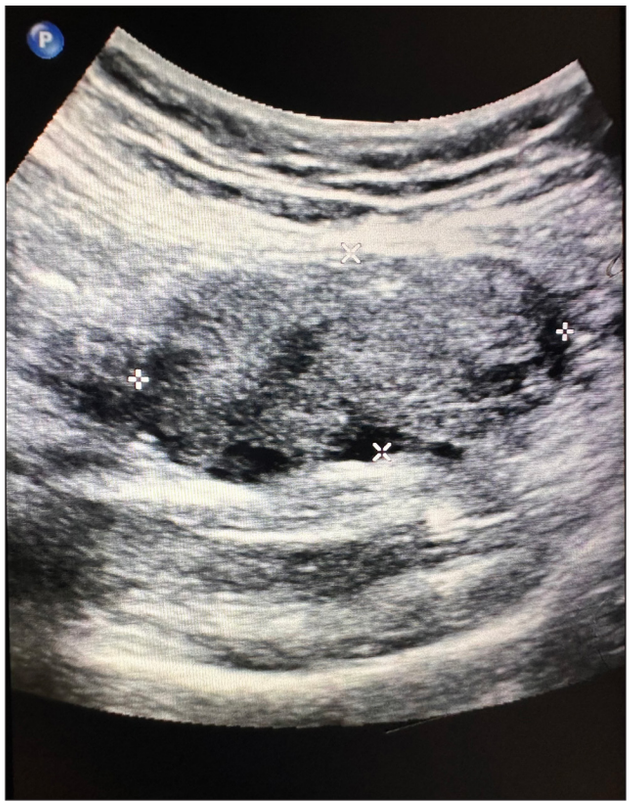

Figure 1: On ultrasound: diffusely bulky, edematous left ovary with peripherally placed follicles.

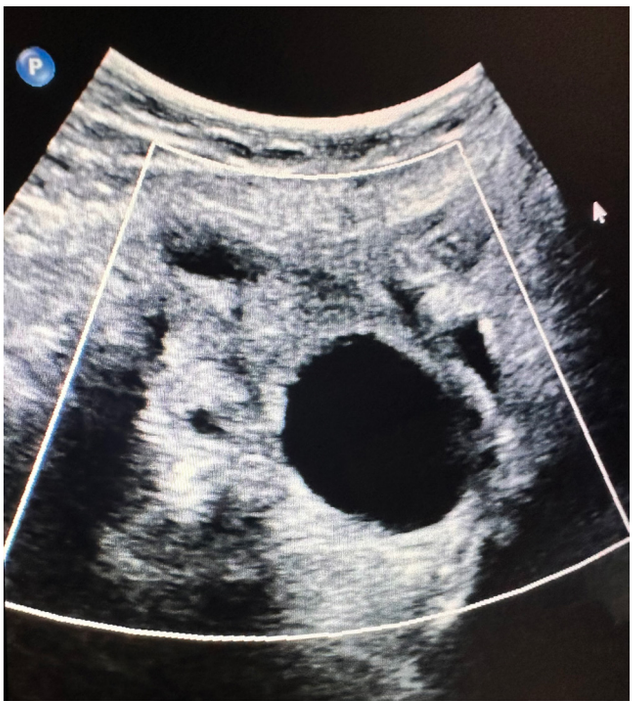

Figure 2: On ultrasound: diffusely bulky, edematous left ovary with peripherally placed follicles and absent vascularity on color doppler.

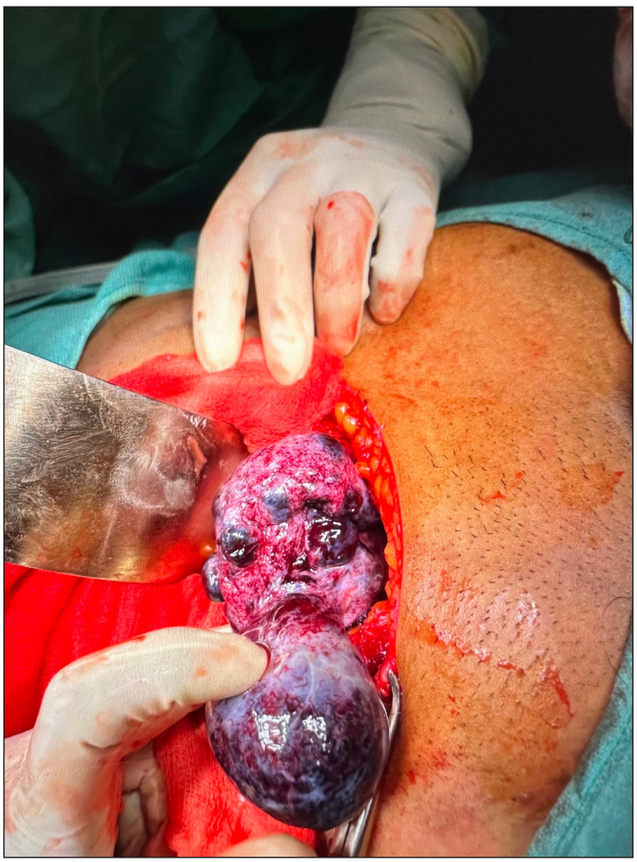

Figure 3: Intraoperative findings: the ovary with the cyst is gangrenous and has twisted twice.

to be enlarged and gangrenous, with two twists around its pedicle. Despite careful detorsion efforts, no improvement in the color or reduction in edema was observed after 15–20 minutes. Consequently, a left salpingo-oophorectomy was performed [Figures 3 and 4]. Both the intraoperative and immediate postoperative periods were uneventful. The patient was discharged on the fifth postoperative day after confirming fetal viability. The histopathology report revealed a benign hemorrhagic cyst with congested and hemorrhagic ovarian stroma.

DISCUSSION

Acute abdominal pain during pregnancy can result from various causes, one of which is adnexal torsion—a common surgical emergency.[1–3] This condition involves the partial or complete rotation of the ovarian pedicle along its long axis, typically affecting both the ovary and the fallopian tube. Therefore, the term "adnexal torsion" is often preferred over "ovarian torsion." Initially, torsion compromises venous flow, leading to congestion and edema in the affected ovary. This is followed by reduced arterial flow, which can result in ischemia and potentially fatal necrosis.[4,5] A history of

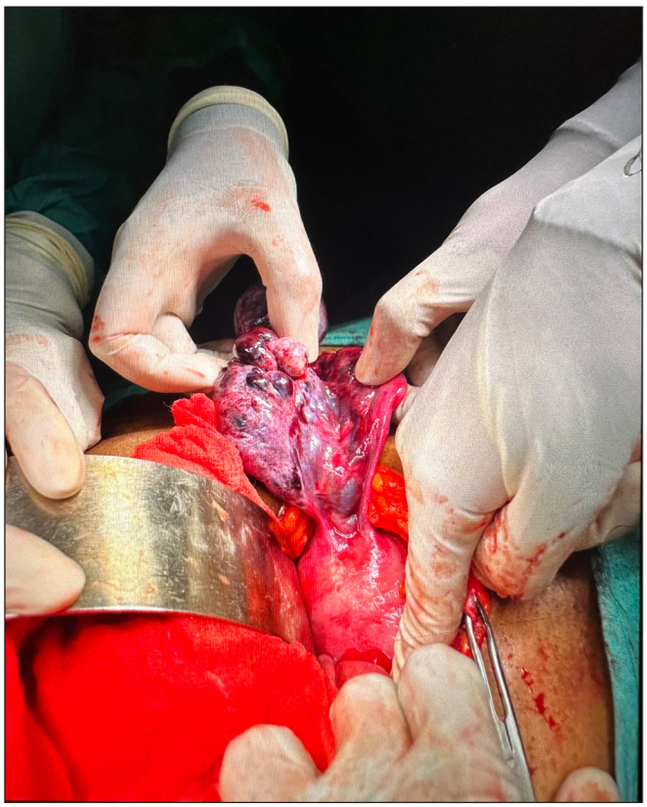

Figure 4: Intraoperative findings: the ovary with the cyst is gangrenous and has twisted twice.

ovarian cysts is a known risk factor for adnexal torsion during pregnancy. The condition occurs in approximately one in 5,000 pregnancies, most frequently during the first and early second trimesters.[5,6] Symptoms typically include abdominal pain, which may be accompanied by fever and vomiting. Ultrasound is the primary diagnostic tool due to its widespread availability and effectiveness in identifying abdominal conditions. The most common ultrasound finding in adnexal torsion is an enlarged ovary with multiple small peripheral follicles.[4] Although twisting of the ovarian pedicle is characteristic of adnexal torsion, it is observed in less than 30% of cases. The main differential diagnoses for acute lower abdominal pain in pregnant women are adnexal torsion, ureteric or renal calculi, acute appendicitis, diverticulitis, and intestinal obstruction.

CONCLUSION

Adnexal torsion is a gynecological emergency that can occur during pregnancy. Diagnosis is often based on clinical symptoms and ultrasound findings. It is crucial for radiologists and obstetricians to be aware of the risk of acute adnexal torsion in pregnant women. Timely surgical intervention is essential for the well-being of both the mother and the unborn child.

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