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Case Report

## Acute pancreatitis masquerading as an ovarian torsion: a rare case report

Ankita Bansal Goyal<sup>1\*</sup>, Lata Goyal<sup>1</sup>, Nilesh Goyal<sup>2</sup>, Saket Jain<sup>3</sup>

<sup>1</sup>Department of Obstetrics and Gynecology, <sup>2</sup>Department of General Surgery, <sup>3</sup>Department of Radiology, Sankalp Hospital, Ambikapur, India

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**\*Correspondence:**

Dr. Ankita Bansal Goyal,

E-mail: [drankitabansal1990@gmail.com](mailto:drankitabansal1990@gmail.com)

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### ABSTRACT

Ovarian torsion is a common diagnostic challenge constituting 2.7% to 7.4% of all gynaecological emergencies. It commonly occurs in women of reproductive age however pre-pubertal girls and postmenopausal women can also be affected. Ovarian torsion accounts for approximately 3% of all cases of children with acute abdominal pain and requires immediate surgical intervention. Other common acute adnexal pathologies include simple ovarian cysts (OCs) with or without rupture. Owing to the nonspecific clinical presentation and poor specificity of radiologic tests, the diagnosis of OT in girls remains challenging. Here we are reporting a case of acute abdomen with large cyst on ultrasound clinically presented as torsion later on in the post-operative period diagnosed with acute pancreatitis.

**Keywords:** Ovarian torsion, Pancreatitis, Ovarian cyst

### INTRODUCTION

Ovarian torsion is a common diagnostic challenge constituting 2.7% to 7.4% of all gynaecological emergencies.<sup>1</sup> It commonly occurs in women of reproductive age however pre-pubertal girls and postmenopausal women can also be affected.<sup>1</sup> OT accounts for approximately 3% of all cases of children with acute abdominal pain and requires immediate surgical intervention.<sup>2</sup> Other common acute adnexal pathologies include simple ovarian cysts (OCs) with or without rupture.<sup>3</sup> Owing to the nonspecific clinical presentation and poor specificity of radiologic tests, the diagnosis of OT in girls remains challenging.<sup>4</sup>

### CASE REPORT

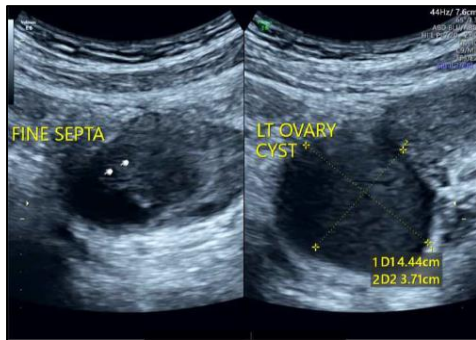
19-year-olds unmarried girl presented to emergency department during her 3rd day of regular menstrual cycle with sudden onset of left iliac fossa pain. The pain was described as severe and sharp, constant and associated

with vomiting. Similar episodes were experienced 2 to 3 days back that was for short duration and resolved with antibiotics and analgesics. She was otherwise well and no associated gastrointestinal or genitourinary symptoms. She had no significant past medical or surgical history.

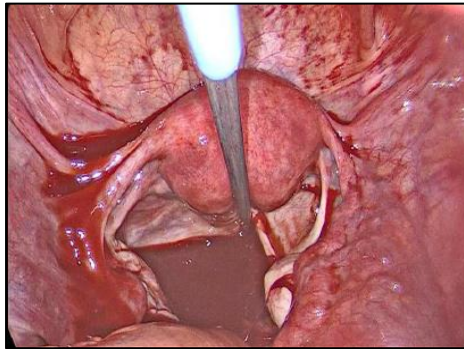
On examination, she was afebrile with a heart rate of 94 beats per minute (bpm) and a blood pressure of 110/70 mmHg. Her abdomen was “soft” but she displayed voluntary guarding in the left iliac fossa. There was no renal angle tenderness and bowel sounds were present. Per-Rectal examination revealed a large cystic mass in left side reaching up-to midline, near about 5×6 cm. Mass was cystic, mobile and tender.

Investigations- Urinalysis did not suggest a urinary tract infection. Blood investigations were all normal. Pelvic ultrasound demonstrated left ovarian cyst of 5.2 cm with 4.3 cm with fine septations suggesting of haemorrhagic cyst (Figure 1) along with free fluid in the abdomen. Pancreas and Gall bladder were normal. Her previous scan

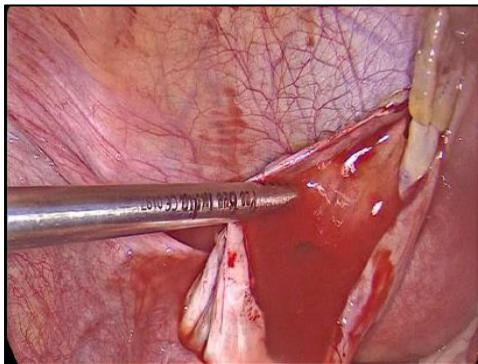
showed the presence of thick-walled complex cyst of 62×44 mm with septations in left ovary suggesting of dermoid cyst.



**Figure 1: Ultrasound showing cysts with fine septations.**



**Figure 2: Laparoscopy showing hemoperitoneum.**



**Figure 3: Laparoscopy showing simple cyst in left ovary.**

**Diagnosis**

The clinical and radiological findings were consistent with torsion of cyst. The patient was admitted and the decision was made for an emergency laparoscopy. Intraoperative findings revealed a 6cm diameter simple cyst in left ovary with no evidence of torsion (Figure 2). There was a hemoperitoneum of 100 mL (Figure 3). Of note there was a normal appearing right ovary, appendix and no evidence of adhesions, infection or endometriosis throughout the

pelvis. The cyst was tensed that ruptured while holding with atraumatic grasper. Thus, we proceeded with left ovarian cystectomy.

In the postoperative period the pain subsided but patient has persistent vomiting, that was non projectile and non-bilious. The general condition was good with stable vitals, afebrile, abdomen was soft and patient was passing flatus and stools. Repeat ultrasound on Day 2 showed no pathology with normal pancreas and gallbladder. However, her TLC was on rising trend. So antibiotics were hiked (switched from cefuroxime and metronidazole to piperacillin-tazobactam and clindamycin) and patient was kept nil per oral. Despite improving TLC counts with higher antibiotics her vomiting was not resolving and there was no other associated findings. On day 4 of surgery – liver function test was normal. Serum amylase -342 IU/L and serum lipase was 750 IU/L. Thus a diagnosis of acute pancreatitis was made and patient was started on octreotide and managed conservatively with iv fluids and anti-emetics. She improved and started taking orally from day 7 onwards and was discharged on 9th post-operative day. She came for follow up after two weeks, her Serum amylase and lipase were normal with a normal TLC count.

**DISCUSSION**

Ovarian torsion can occur at any age with the greatest incidence in women 20-30 years of age. About 70% of ovarian torsion occurs on the right side, hypothesised to occur due the longer utero-ovarian ligament on this side and the limited space due to the presence of the sigmoid colon on the left side.<sup>1</sup> however this was not consistent with this case report in which we suspected torsion on left side. Although there are several risk factors for ovarian torsion, it is frequently associated with ovarian pathologies that result in enlarged ovaries. The most frequent encountered pathology is that of an ovarian dermoid (as was suspected in our case). The diagnosis of ovarian torsion is challenging as the clinical parameters yield low sensitivity and specificity. Abdominal pain is reported in the majority of patients but with variable characteristics. Nausea and vomiting is also common, occurring in 55-45% of cases.<sup>4</sup> Other non-specific symptoms including fever, non-menstrual vaginal bleeding and leucocytosis can also be reported.<sup>1</sup> In this case report the patient presented with acute abdominal pain and vomiting with an ultrasound picture of ovarian cyst that suggested possibility of dermoid or haemorrhagic cyst with minimal fluid. Although, these symptoms are common to many other differential diagnoses of an acute abdomen, including: ectopic pregnancy, ruptured ovarian cyst, pelvic inflammatory disease, gastrointestinal infection, appendicitis, and diverticulitis but we didn't initially considered pancreatitis due to its rare possibility with normal pancreas on ultrasound and all features were explainable with a clinical diagnosis of torsion.<sup>4</sup>

Imaging is frequently used in the management of an acute abdomen. In gynaecology, ultrasound has become the

routine investigation for potential pelvic pathologies, and colour Doppler studies have been used to assess ovarian blood supply. However, the diagnostic contribution of ultrasound scan and doppler studies to the diagnosis of ovarian torsion remains controversial<sup>4</sup>. ovarian enlargement of more than 4 cm is the most consistent ultrasound feature in ovarian torsion, and the presence of blood flow on ultrasound scan Doppler studies indicates probable viability of the ovary rather than the absence of ovarian torsion<sup>5</sup>. In the presented case, left ovary showed a cyst of 5-6 cm with normal blood flow to the ovaries that can be taken as possibility of recent ovarian torsion.

Laparoscopy is the surgical approach of choice as it has the advantages of a shorter hospital stay and reduced postoperative pain requirements. In this case report although there was no torsion or cyst rupture, the hemoperitoneum can be due to inflammation of the peritoneum or due to rupture of small vessels secondary to proteolytic activities of pancreatic enzymes. However, cystectomy alone of the left ovary was sufficient to resolve the pain.

## CONCLUSION

Ovarian torsion is difficult to diagnose clinically and on ultrasound, Clinical suspicion of ovarian torsion determines the likelihood of operation with Laparoscopy being the surgical approach of choice. Acute pancreatitis can sometime mimic ovarian torsion clinically, especially when there is an adnexal mass and can present with inflammatory haemorrhagic fluid in the peritoneum mistaken to be due to ovarian torsion. So, while thinking of ovarian torsion in young girl, other causes of acute abdomen along with appendicitis i.e pancreatitis should be

ruled out. In the post-operative period, with unexplained vomiting's and rising TLC counts, along with sepsis and surgical complications other medical entity should be thought of.

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