



Laparoscopic Left Ovarian Cystectomy With Left Salpingo-Oophorectomy Performed For Torsion Of Left Ovarian Cyst: A Case Report

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Abstract: An ovarian cyst is a fluid-filled sac that develops on or inside the ovary. These cysts are prevalent, especially during the reproductive years, and are often harmless and symptom-free.

Types of Ovarian Cysts

1. Functional Cysts (most common)

- Follicular Cysts
- Corpus Luteum Cysts

2. Pathological or Non-Functional Cysts:

These form due to abnormal tissue growth and include:

- Endometriomas (from endometriosis)
- Dermoid Cysts (contain tissues like skin, hair)
- Cystadenomas (arise from the ovary's surface)

Ovarian torsion is a gynaecological emergency that occurs when an ovary twists around the ligaments that hold it in place, cutting off its blood supply. It's a serious condition that requires prompt diagnosis and surgical intervention to save the ovary and prevent complications.

A 25-year-old female came to our department with

C/O – Severe Abdominal Pain and Nausea for 1 day

O/E – Patient's vitals were stable.

Per Abdominal examination, tenderness was revealed in the Left iliac region.

Per Vaginal examination revealed a Uterus corresponding to Normal size, tenderness noted in the left fornix with no cervical motion tenderness.

Per speculum examination revealed a mild degree of Cervical erosion over the anterior and posterior lips of the cervix.

USG was suggestive of a Left Ovarian Cyst with Torsion. A large thick-walled cystic lesion of size 85x55mm was seen in the Left Adnexa adjacent to the Left Ovary. The left ovary was bulky & oedematous.

The patient consented to Emergency Laparoscopic Left Ovarian Cystectomy under Spinal Anaesthesia for Torsion of Left Ovarian Cyst. Intra-operative findings noted were a Large left ovarian cyst of approximate size 8x5cm with torsion near its base, and the Left ovary was bulky. Detorsion of the Left ovarian cyst was

done for 3 times. Left Salpingo-oophorectomy was carried out. The patient was vitally stable and was discharged without complication.

KEYWORDS: Ovarian cyst, Torsion, Salpingo-oophorectomy, Laparoscopy.

I. INTRODUCTION:

Ovarian torsion is a condition where the ovary twists on its supporting ligaments, cutting off or reducing blood flow to the ovary and potentially the fallopian tube. This twisting can be partial or complete. Ovarian torsion is more likely to occur when an ovarian cyst or other mass is present.

Causes of Ovarian torsion include:

- 1) Ovarian Cysts – Larger cysts can add weight to the ovary and make it more susceptible to twisting.
- 2) Other Masses – Tumours or other growths on the ovary can also cause it to shift & twist, leading to torsion.
- 3) Other factors, such as Elongated ovarian ligaments, ovarian enlargement and specific conditions like pregnancy, can contribute to Ovarian torsion.

Symptoms:

- ❖ Intense, sudden pelvic pain is the primary symptom of Ovarian torsion and may occur on one side or alternate between sides.
- ❖ Nausea & Vomiting
- ❖ Additional possible signs – light-headedness, altered bowel movements, frequent urination & discomfort during sexual activity.

Treatment:

Ovarian torsion is a surgical emergency. Surgery is required to untwist the ovary (detorsion) and restore blood flow. If the ovary is severely damaged, it may need to be removed (Oophorectomy) along with the cyst. Prompt and early intervention can help prevent permanent damage to the ovary and preserve its functions. Untreated ovarian torsion can lead to tissue death (Necrosis) of the ovary, infection and other complications.

II. CASE REPORT:

A 25-year-old female came to the *Prasutitantra evum Striroga* department with severe abdominal pain and nausea for 1 day. Her menstrual cycle was regular, with the last menstrual period date 10/07/25.

Obstetric history – G4 P1 L1 A3 D0

She had no history of medical or surgical illness.

Physical examination – Vitally stable.

P/A – Tenderness present at the Left iliac region.

Per speculum examination revealed a mild degree of Cervical erosion over the anterior and posterior lips of the cervix.

Per Vaginal examination revealed a Uterus corresponding to Normal size, tenderness noted in the left fornix with no cervical motion tenderness.

Ultrasonography findings – Uterus was normal in size & shape. ET – 12mm. A large thick-walled cystic lesion of size 85x55mm was seen in the Left Adnexa adjacent to the Left Ovary. The left ovary was bulky & oedematous. Possibility of Left Ovarian Cyst with Torsion.

Laboratory Investigation:

Hemogram – Hb = 10.7gm%; WBC = 4670/cmm;

Platelet count = 1,62,000/cmm

Blood group = 'O' Rh Positive.

Her Coagulation test, Kidney function test & Urine routine test were Normal, but Liver function test was deranged.

SGOT = 201.8 U/L; SGPT = 226.2 U/L

CA-125 = 14.3 U/ml

The physician's opinion was taken for raised SGOT & SGPT levels & advised

Tb. Udiliv 300mg 1 BD x30days

Cap. Econorm 250mg 1 BD x5days

Management:

Inj. Buscopan 20mg IV stat was given. Patient consented to Emergency Laparoscopic Left Ovarian Cystectomy for Torsion of the Left Ovary under Spinal Anaesthesia.

Surgical Intervention:

A Large Left Ovarian Cyst of approximate size 8×5cm with torsion near its base was noted. The left ovary was bulky. Detorsion of the Left Ovarian Cyst was done for 3 times. The left ovarian cyst was punctured at one side, and the contents were suctioned. The Left ovarian cyst from its base was cut & separated. Morcellation of the Left ovarian cyst was done. The left fallopian tube was cut near its cornual end & separated.

The glove was inserted through the established port into the peritoneal cavity. Left ovarian cyst along with the Left ovary and left fallopian tube collected in a glove & removed carefully to prevent its spillage into the peritoneal cavity. Sample collected & sent for HPE.

Laparoscopically, Left Ovarian cystectomy with Left Salpingo-oophorectomy was done.

The right ovary and right fallopian tube were visualised and were normal. Haemostasis achieved & confirmed. Peri & postoperative complications were not observed. Antibiotic coverage & analgesics were given. Patient was vitally stable & hence was discharged on the 3rd postoperative day in good condition.

Histopathological findings were suggestive of Endometrioid Cyst.



Fig. 1 Left Ovarian Cyst with Torsion



Fig. 2 Left Ovarian Cyst with Torsion

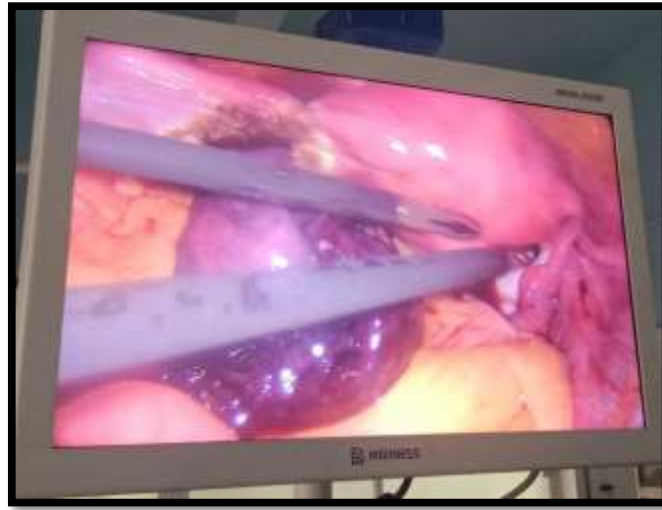


Fig. 3 Left Ovarian Cyst After Detorsion



Fig. 4 Normal Right Ovary and right fallopian tube



Fig. 5 Left Ovarian Cystectomy with Left Salpingo-oophorectomy

III. DISCUSSION:

Ovarian torsion is a gynaecological emergency characterised by rotation of the ovaries on their ligamentous supports, leading to compromised blood flow. To preserve ovarian function and avoid necrosis, prompt diagnosis and timely surgical intervention are crucial.

Minimally invasive surgery has emerged as the preferred approach for both diagnosis & treatment of adnexal torsion, particularly in reproductive-age women. Compared to Laparotomy, Laparoscopy offers reduced postoperative pain, shorter hospital stays, quicker recovery and improved cosmetic outcomes. Furthermore, Laparoscopy allows for better visualisation of pelvic structures, enabling precise identification of the twisted adnexa and concurrent treatment of underlying pathologies such as ovarian cysts.

Intra-operatively, the left ovary was found to be enlarged and twisted with dusky colouration suggestive of ischaemia. Despite detorsion, there was no evidence of reperfusion, and the ovary appeared non-viable. While conservative management with detorsion and cystectomy is often preferred, especially in younger patients, removal of the ovary(oophorectomy) was necessary in this case due to the severity of ischaemic damage and necrosis.

Histopathological evaluation confirmed the benign nature of the cyst and ischaemic necrosis of the ovarian tissue. While some Scholars advocate for ovarian preservation even in cases of apparent necrosis, studies have shown variable outcomes in terms of functional recovery post detorsion. In this scenario, given the gross necrosis and lack of vascular response following detorsion, oophorectomy was deemed appropriate.

Patient counselling regarding possible outcomes, including oophorectomy, should be an integral part of pre-operative discussion, particularly when fertility preservation is a concern.

IV. SUMMARY:

This article discusses the surgical management of left ovarian torsion, a gynaecological emergency resulting from the twisting of the ovary, often due to an ovarian cyst. The patient presented with Severe abdominal pain and nausea. Imaging revealed a Large Left ovarian cyst with torsion. The procedure performed was a Laparoscopic Cystectomy with removal of the left ovary(oophorectomy). Intra-operatively, the ovary appeared ischaemic and non-viable due to prolonged torsion. The cystectomy was performed to remove the benign cyst, and the ovary was excised due to irreversible damage. The minimally invasive approach allowed for a quicker recovery, less post-operative pain and reduced hospital stay.

The article highlights:

- 1) Importance of early diagnosis and intervention to preserve ovarian function.
- 2) Indications for oophorectomy when the ovary is necrotic or non-salvageable.
- 3) The role of Laparoscopy as the gold standard for diagnosis and treatment of Ovarian torsion.

V. CONCLUSION:

Laparoscopic management of ovarian torsion with cystectomy and oophorectomy is safe and effective. Timely intervention is critical to optimise outcomes and prevent complications such as infection or peritonitis.

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