

DOI: <https://dx.doi.org/10.18203/2320-1770.ijrcog20240680>

Case Report

Torsion of ovary and acute abdomen

Suvidha Saurabh*

Department of Obstetrics and Gynaecology, ESIC Medical College and Hospital, Bihta, Patna, Bihar, India

Received: 20 February 2024

Accepted: 07 March 2024

*Correspondence:

Dr. Suvidha Saurabh,

E-mail: suvidhasourav4@gmail.com

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ABSTRACT

Ovarian torsion refers to partial or complete rotation of ovarian vascular pedicle. This study explored the presenting symptoms and management of ovarian torsion in a newly established ESIC Medical College and Hospital, Bihta, Patna. This report presents two cases of ovarian torsion, the presenting symptoms and management. This underscores the need of prompt diagnosis and management to improve postoperative outcomes.

Keywords: Torsion, Ovary, Laprotomy, Infundibulopelvic

INTRODUCTION

Ovarian torsion is caused by twisting of the ligaments that support the adnexa, cutting off the blood supply to the organ and representing a true surgical emergency. The fallopian tube also twists with the ovary, which is then referred to as adnexal torsion.

Ovary is connected to the lateral pelvic wall by the infundibulopelvic ligament which contains the main ovarian vessels. It is also called the suspensory ligament. The main risk factor for ovarian torsion is an ovarian mass that is 5 cm in diameter or larger. The mass increases the chance that the ovary could rotate on the axis of the two ligaments holding it in suspension. This torsion impedes venous outflow and eventually, arterial inflow. Ovary is connected to the uterus by utero ovarian ligament.¹

Torsion occurs in females of all age groups but is common in women of childbearing ages. The majority of reproductive age group females with torsion had benign ovarian mass.² Ovarian torsion commonly occurs unilaterally and in a pathologically enlarged ovary. Torsion of normal ovary is seen in young children.^{3,4} Pregnancy is associated with torsion in 20% cases Ovarian tumors either malignant or benign are associated with torsion in 50-60% cases. 17% cases occur in post-menopausal women.⁵

Torsion occurs when the ovary twists on its own supporting ligaments. This causes obstruction of the blood flow. Initially the venous outflow is obstructed and later arterial inflow is also interrupted due to increased swelling leading to necrosis of ovary, infarction, haemorrhage and possibly peritonitis.

We document two cases of acute torsion of the ovary which were managed in our hospital.

CASE REPORT

Case 1

A 47 years old woman presented to the emergency with acute pain abdomen which was sudden in onset and associated with nausea and vomiting. She was a post-menopausal P2L2 both by vaginal deliveries. Base line investigations were sent along with beta human chorionic gonadotropin (HCG or hCG) and sonography. All her blood reports were within normal range except the total count was on a higher side. Patient was taken up for emergency laparotomy and on per operative finding torsion of the right ovary. Ovarian cystectomy was done and specimen was sent for histopathological (HPE) which showed simple cyst of the ovary. Post-operative period of the uneventful and she was discharged in a stable condition.



Figure 1: Torsion of ovary, simple cyst.

Case 2

A 35-year-old female P4L4 previous vaginal deliveries, ligated, presented to the emergency with acute pain abdomen. On examination her vitals were normal. On per abdominal examination a lump upto 12-weeks size of the uterus was felt. Per vaginal examination showed fullness in both fornix and a definite lump could not be discerned. She had got her sonography done just one-day back which showed ovary to be enlarged to about 10 cm size but there was no free fluid. Her beta hcg reports were normal. She underwent emergency laprotomy and ovarian torsion and necrosis of right ovary was seen. Specimen was sent for HPE and serous cystadenoma of right ovary was seen. Post-operative period was uneventful and she was discharged in a stable state.

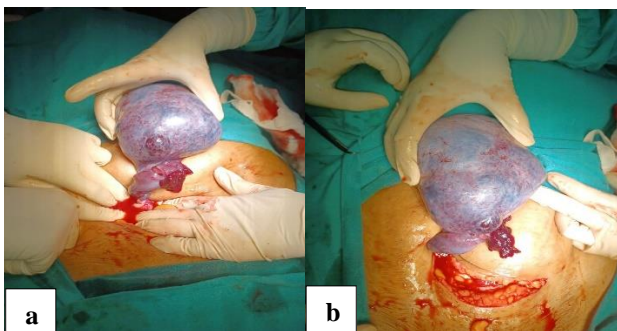


Figure 2 (a and b): Torsion, serous cystadenoma of right ovary.

DISCUSSION

This case article showed two cases of acute abdomen and the per operative findings of the patients. The main risk factor for ovarian torsion is an ovarian mass that is 5 cm in diameter or larger. The mass increases the chance that the ovary could rotate on the axis of the two ligaments holding it in suspension. This torsion impedes venous outflow and

eventually, arterial inflow. The diagnosis and management of ovarian torsion are complex and involve many different health care professionals. A female presenting with nonspecific symptoms of abdominal pain, nausea and vomiting may represent a gynaecological, obstetrical, gastrointestinal or genitourinary process. Imaging studies are the most important when evaluating a pelvic mass.⁶ An ultrasound can easily distinguish an ovarian mass by its components, location, density, Doppler flow and size. There can be decreased or absent Doppler flow in vessels of a torsed ovary.⁷⁻⁹ Finally, direct visualisation is needed for a definitive diagnosis of ovary torsion. Hence, the diagnosis needs to be surgically proven for early rescue of ovarian functions. Timely intervention based on high clinical suspicion can reduce morbidity of the patient.

CONCLUSION

Diagnosis of ovarian torsion is a difficult task which is generally based on high degree of clinical suspicion and accurate physical examination. Ultrasound with Doppler is most useful in diagnosing torsion. Laparoscopy is the recommended procedure as it gives shorter post-operative period and hospital stay. Laprotomy is still done where laparoscopic facilities are not available.

ACKNOWLEDGEMENTS

The author would like to acknowledge the patients of Department of Obstetrics and Gynaecology of ESIC, Bihta, Patna, Bihar.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: Not required

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Cite this article as: Saurabh S. Torsion of ovary and acute abdomen. Int J Reprod Contracept Obstet Gynecol 2024;13:1052-4.