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Case Report

A case report of tubo-ovarian torsion in 4 years old girl

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ABSTRACT

Tubo-ovarian torsion is infrequent diagnosis, clinical picture is nonspecific and children cannot articulate their symptoms which make diagnosis as a challenge. High index of suspicious and early intervention prevents damage to adnexal tissue.

Keywords: Laparoscopy, Laparotomy, Tubo-ovarian, Torsion

INTRODUCTION

Ovarian torsion first described by Kuestner in 1891. Torsion occurs secondary to abnormal twisting of involved ovary, fallopian tube or both on its ligaments support, which results in venous congestion, haemorrhage, and eventually ischemia.

Prolonged ischemia of ovary or adnexal structure can leads to necrosis, resulting in loss of ovarian function or infection and peritonitis. 5th most common gynaecological emergency comprising 2-3% of acute surgical emergencies.¹

Ovarian torsion is an infrequent diagnosis in the paediatric age group. The clinical picture is non-specific and children cannot articulate their symptoms, which often makes diagnosis as a challenge. Studies have found an estimated incidence of 4.9 per 100000 among females 1 to 20 years old.² and a diagnosis in up to 2.7% of cases presenting with acute abdominal pain.³ Delay and misdiagnosis of adnexal torsion are common and leads to permanent damage to ovary, tube or both.⁴ Current report shows 80-90% salvage of ovary and tube with early surgical intervention.⁵

CASE REPORT

A 4 years old girl brought to emergency dept of Rajarajeswari hospital with chief complaints. Lower abdominal pain since, 3 days. Fever since, 2 days. 1 episode of seizure. On examination, she was normotensive, temperature 100 F, pulse 110 beats/min and of good volume. CVS s1 s2 heard tachycardia present. RS B/L NVBS heard. PA slightly distended, tenderness present in right iliac fossa, guarding present, no organomegaly. Emergency USG (abdomen and pelvis) had done shown right side Tubo ovarian torsion. Colour Doppler showed absent blood flow, finding confirmed with MRI (Figure 1). CBC shows leucocytosis. RFT, LFT, SE, CXR and ECG WNL. As per ultra sound and MRI reports, which showed right sided Tubo ovarian torsion. Call given to pediatric surgeon and proceeded with diagnostic laparoscopy.

Intra operative finding

- Right side Tubo ovarian torsion.
- Right adnexa twisted 360⁰ (Figure 2).
- Right side Tubo ovarian mass of 5*5cms with venous congestion (Figure 2).

Detorsion done and waited for 5 min, no colour changes seen. Laparoscopic right sided salpingo-oophorectomy done. Histopathology report: Specimen of Tube and Ovary with haemorrhage and necrosis. Post-operative period was uneventful. Patient discharged on 8th post-operative day.

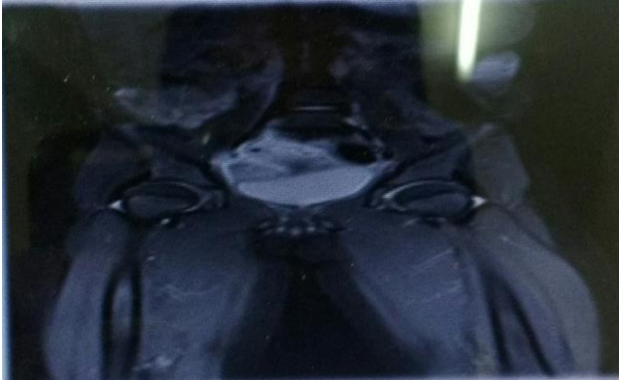


Figure 1: MRI (abdomen and pelvis): shows right side tubo ovarian torsion.



Figure 2: Shows right side tubo ovarian torsion.

DISCUSSION

Tubo ovarian torsion is well-known, poorly recognised and infrequently encountered clinical entity that can involve tube and ovary. Mostly seen in adolescent and child bearing age group due to physiological mobility of organ. Right side is more common.

Adnexal torsion in young girl present diagnostic challenge because signs and symptom will be nonspecific and mimic constipation, gastroenteritis, appendicitis, renal calculi, intussusceptions, ruptured ovarian cyst. Timely intervention can make difference between ovarian loss and salvage an outcome of great importance in population of reproductive age group.

Proposed mechanisms that may increase risk of ovarian torsion in a normal ovary

Disproportionately elongated utero-ovarian ligament that allows excessive ovarian movements, jarring movements

of relatively large ovary in small infants and associated Mullerian anomalies. Most common symptoms are abdominal pain, nausea and vomiting. High index of suspicion for adnexal torsion is imperative in any girl presenting with lower abdominal pain and Ultra sound should be done.

Gray-scale US feature of ovarian torsion

- Unilaterally enlarged ovary >4cms.
- String of pearls sign.
- Coexistent mass within the twisted ovary.
- Free pelvic fluid.
- Twisted vascular pedicle.

Presence of blood flow on colour Doppler does not rule out torsion. CT/ MRI should be done when Ultra sound report is equivocal. Urgent surgical evaluation must be emphasized. If torsion is recent or incomplete, the tissue will be viable, it is then possible to conserve them.

Better outcomes shown if surgical intervention done within 36 hrs. Mainstay of treatment is diagnostic laparoscopy and detorsion of the ovary. Historically laparotomy and salpingo oophorectomy was the standard treatment of the torsion ovary. Laparoscopy is better than laparotomy as it is cosmetically better, decrease operative time, less pain, less blood loss, less hospital stays and less adhesion formation and improved fertility outcome.^{6,7}

CONCLUSION

Tubo-ovarian torsion although uncommon, should be included in the differential diagnosis of lower abdominal pain in any girl, irrespective of age. Ultrasound and Doppler are important for diagnosis of torsion and presence of blood flow on Doppler does not rule out torsion. CT / MRI can be done when ultrasound findings are equivocal. Time is crucial factor and timely laparoscopy / laparotomy and detorsion helps to salvage viable ovary and tube. Laparoscopy is preferred as it is cosmetically better, decrease operative time, less pain, less blood loss, less hospital stay and less adhesion formation and improved fertility outcome in future.

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