International Journal of Reproduction, Contraception, Obstetrics and Gynecology
Hansda R et al. Int J Reprod Contracept Obstet Gynecol. 2024 Dec;13(12):3756-3757
www.ijrcog.org
pISSN 2320-1770 | eISSN 2320-1789

DOI: https://dx.doi.org/10.18203/2320-1770.ijrcog20243619

Case Report

Ovarian torsion in adolescent

Rosalin Hansda*, Mahima Pandit, Dabmalya Ghosh

Department of Obstetrics and Gynecology, Serampore, Sub Divisional Hospital, West Bengal, India

Received: 07 October 2024
Accepted: 07 November 2024

***Correspondence:**
Dr. Rosalin Hansda,
E-mail: rose.heer87@gmail.com

ABSTRACT

Ovarian torsion is a gynaecological emergency which requires immediate surgical intervention for salvaging ovary and fertility. Ovarian torsions present with acute pelvic pain which is followed by autonomic reflex response (nausea, emesis and tachycardia). In this case report we are reporting a case of 19 years old female with acute pain abdomen and vomiting. On examination she had tenderness in lower abdomen which shifted more towards the left iliac fossa, ultrasound suggested an ovarian cyst of size 51×81×100 mm. Ovarian torsion was diagnosed and immediate laparotomy was done.

Keywords: Ovarian torsion, Ovarian cyst, Adolescent, Adnexal mass, Acute abdomen, Laparotomy, Abdominal pain, Torsion abnormality, Laparoscopy, Cystectomy, Serous cystadenoma, Fertility preservation

INTRODUCTION

Torsion of an ovarian cyst is rare in adolescents, but even though it is uncommon, it can cause significant distress to patients. The estimated incidence of ovarian torsion in females aged 1 to 20 years is 4.9 per 100000.[1] Ovarian torsion refers to a complete or partial rotation of the adnexal supporting organ, resulting in ischemic changes in the ovary.[2] This can affect the growth, development, reproduction and endocrine functions. The pathophysiology of ovarian torsion involves various factors, such as changes in intra-abdominal pressure, tubal spasms, ligament overactivity, and hormonal activity during the premenstrual and peripartum periods.[3] The diagnosis of ovarian torsion is challenging as clinical symptoms are neither sensitive nor specific and there are no definitive criteria with imaging. Surgical diagnosis (laparoscopy or laparotomy) remains the diagnostic and therapeutic method of choice if there is suspicion of ovarian torsion. Adnexal torsion must be treated surgically. The adnexa may be untwisted and a cystectomy performed if appropriate. Even when it appears that necrosis occurred, there is evidence that it remains functional and sparing the adnexa can preserve its hormonal and reproductive function. Treatment can be accomplished by laparoscopy or laparotomy, depending on the size of the mass.

CASE REPORT

A 16-year-old unmarried female came to the OPD with complain of occasional pain abdomen which was dull in nature, non-radiating and not associated with nausea or vomiting. Her pain would resolve spontaneously. Her menarche occurred at age 13 years and her menstrual cycles were regular, every 28 days with 7 days of flow. She had never taken hormonal contraceptives. She had no other gynaecological symptoms, such as intermenstrual bleeding or dysmenorrhea. She had no significant past medical, surgical, or drug history, nor any relevant family history. She was generally fit and well. On An abdominal examination revealed tenderness on superficial palpation of left iliac fossa. No guarding of the abdomen. No pelvic examination was performed. An ultrasound was advised and it revealed a cystic lesion of 51×81×100 mm in pelvis near midline which was abutting the left ovary. Later she was advised further evaluation with tumour markers. After three days the patient presented to the ER with complain

of severe pain abdomen in the left lower quadrant which was colicky in nature and non-radiating and was associated with nausea and vomiting. On examination the patient's temperature was 37.7°C, her blood pressure was 108/72 mmHg, and her pulse rate was 104 bpm. An abdominal examination revealed tenderness on superficial palpation of the suprapubic and left iliac fossa. A complete blood count showed that the patient had a white blood cell count of 13.9×109/l, her haemoglobin level was 10g/l, and her platelet count was 112×109/l. Her serum markers were normal. Urine pregnancy test was negative. Ovarian torsion was suspected and immediate laparotomy was scheduled with proper written, well-informed, and valid consent.

Intraoperatively left sided ovarian cyst of size 5×8×8 cm with 1.5 rotation around axis was noted and left sided cystectomy was done. Both the ovaries, uterus and fallopian tubes were healthy. Both the ovaries and tubes were preserved. The patient had no complications and was discharged on postoperative day 5. The histopathology report revealed an ovarian cyst with features suggestive of serous cyst of ovary.

Figure 1: Ultrasound suggestive of ovarian cyst.

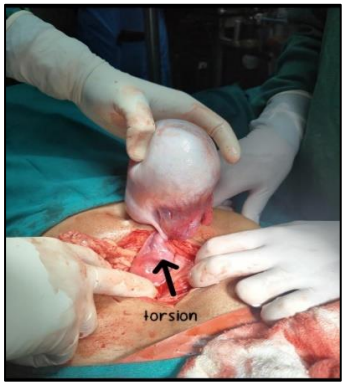

Figure 2: Intraoperative picture of ovarian torsion.

DISCUSSION

Young girls presenting with pelvic pain should be considered to have adnexal torsion as a differential diagnosis.[4] Adnexal torsion occurs most often in adolescent girls and in women of childbearing age, nearly all of whom desire future fertility. Delay in diagnosis and treatment of OT may therefore have grave consequences, resulting in functional loss of the ovary.[5] Most paediatric or adolescent patients with adnexal torsion present with acute onset of severe, intermittent pain lasting for 24 hours. Nausea and vomiting, as well as abdominal tenderness were common.[6]

CONCLUSION

Most commonly, adolescents with adnexal torsion are found to have benign teratomas and benign functional ovarian cysts as confirmed on pathology for this patient. Ovarian torsion should always be kept in mind as a differential diagnosis in adolescent girls. The diagnosis of ovarian torsion is challenging as clinical symptoms are neither sensitive nor specific and there are no definitive criteria with imaging. Surgical diagnosis (laparoscopy or laparotomy) remains the diagnostic and therapeutic method of choice if there is suspicion of ovarian torsion.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: Not required

REFERENCES

1. ACOG Committee on Practice Bulletins-Obstetrics ACOG practice bulletin No. 80: premature rupture of membranes. Clinical management guidelines for obstetrician-gynecologists. Obstet Gynecol. 2007;109:1007–19.
2. RCOG green-top guideline No.44. Preterm Prelabour Rupture of Membranes. 2010.
3. Romero R, Quintero R, Oyarzun E, Wu YK, Sabo V, et al. Intraamniotic infection and the onset of labor in preterm premature rupture of the membranes. Am J Obstet Gynecol. 1988;159:661–6.
4. Cobo T, Palacio M, Martínez-Terrón M, Navarro-Sastre A, Bosch J. Clinical and inflammatory markers in amniotic fluid as predictors of adverse outcomes in preterm premature rupture of membranes. Am J Obstet Gynecol. 2011;205:126-8.
5. Dare MR, Middleton P, Crowther CA, Flenady VJ, Varatharaju B. Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more) Cochrane Database Syst Rev. 2006;1:5302.
6. Rossi, Brooke V. The Clinical Presentation and Surgical Management of Adnexal Torsion in the Pediatric and Adolescent Population. J Pediat Adol Gynecol. 2016;25(2)109-13.

Cite this article as: Hansda R, Pandit M, Ghosh D. Ovarian torsion in adolescent. Int J Reprod Contracept Obstet Gynecol 2024;13:3756-7.