



Successful Management of Ovarian Torsion in Reproductive Age Group

Divya KP, Ashok Kumar, Sreelatha S*, Vedavathy, Manasa, Nagesh, Reshma and Lakshmi

Department of Obstetrics and Gynecology, ESIMC & PGIMSR, Bangalore, India

Abstract

Ovarian torsion is a rare but an emergency condition in women, early diagnosis is necessary as it is possible to preserve the function of the ovaries and tubes and prevent severe morbidity if surgery is undertaken early. It can affect all ages, most commonly seen in reproductive age group. It occurs in around 2% to 15% of the patients who have surgical treatment of adnexal masses. We are presenting a case of para 2 living 2 tubectomized with previous 2 LSCS came with complaints of pain abdomen since 3 days, associated with vomiting, emergency ultrasound was done diagnosed with ovarian torsion with pelvic fluid and confirmed with MRI pelvis, after confirmation patient underwent emergency laparotomy with right salphingoophorectomy.

Keywords: Abdominal pain; Vomiting; Ovarian torsion; Ultrasound abdomen and pelvis; MRI abdomen and pelvis

Introduction

Ovarian torsion, which is seen in all ages, is the fifth most common gynecologic cause of acute abdominal pain in reproductive age group [1,2]. It refers to a complete or partial rotation of the ovarian vascular pedicle and causes obstruction to venous outflow and arterial inflow, resulting in ischemic changes in the ovary [3]. The women usually present with acute lower abdominal pain which may be intermittent initially, nausea and vomiting may be present, and sometimes it may be associated with low grade fever [4]. It requires the earliest possible intervention in an attempt to preserve the viability of the involved ovary.

Initially, the torsion compromises the venous and lymph node drainage but arterial flow into the ovary may continue, therefore the ovary may be congested and edematous, but infarction does not occur immediately and with the passage of time, the arterial circulation is also compromised, resulting in thrombosis, ischemia and finally hemorrhage, infection [5]. Tumors are responsible for approximately 50% to 90% of cases of ovarian torsion in adult women and among them mature cystic teratoma is most frequently involved as teratomas are filled with fat are heavy and therefore undergoes torsion more often, Among the non-tumour related causes of torsion, follicular and corpus luteum cysts are most commonly involved [5].

Awareness about common clinical symptoms of torsion, in combination with ultrasound and other imaging modalities is important for maintaining a high index of suspicion among emergency staff for accurate diagnosis and an appropriate management strategy [6].

Case Presentation

We are presenting a case of para 2 living 2 tubectomized with previous 2 LSCS came with pain abdomen since 3 days associated with one episode of vomiting and on examination, patient was conscious, oriented and vitals were stable and on her abdomen examination there was tenderness present over right iliac fossa, with no guarding or rigidity and on per vaginal examination cervix deviated to left, uterus normal size, anteverted, right forniceal fullness present and mass of 4 cm felt in pouch of douglas, emergency transvaginal scan done, scan reports showed bulky heterogeneous right ovary with exophytic cyst as 6.8 cm × 5.6 cm × 6 cm with no internal septations or mural nodules noted in right ovary, pedicle of cyst appears thickened and bulky with vascularity noted and suggested MRI for further evaluation, torsion confirmed by MRI, and patient posted for emergency laparotomy proceeded to right salphingoophorectomy, Intra op findings was moderate ascetic fluid stained with blood, uterus normal size with right ovary edematous with cyst of 6 cm × 6 cm × 5 cm with torsion present and hemosalpinx noted in right fallopian tube, left side ovary and tubes appears normal. Patient withstood the procedure well, postoperative period was uneventful, post op

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*Correspondence:

Sreelatha S, Department of Obstetrics and Gynecology, ESIMC & PGIMSR, Rajajinagar, Bangalore-566010, India; E-mail: dr.sreelatha2011@gmail.com

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Figure 1: This picture shows right ovarian Torsion.

day 8 patient discharged.

Discussion

Ovarian torsion is defined as twisting of the ovary on its vascular pedicle, if remains undiagnosed, blood supply becomes compromised severely resulting in tissue necrosis and thus loss of ovarian function. It can occur in any age and most commonly seen in reproductive age group. In 2005, White et al. [7] in their retrospective study of 10 years concluded that the mean age of presentation was 33.5 years with interquartile range from 28.7 to 39.3 years [4]. It is also seen in postmenopausal women especially those with an ovarian mass [8]. Long utero-ovarian ligaments also predispose to torsion hence torsion is more common on the right side as it has longer utero-ovarian ligament on right side and limited space of left due to the presence of sigmoid colon [4].

Since the clinical parameter of ovarian torsion is nonspecific, diagnosis of ovarian torsion is difficult. Majority of patients presents with acute abdominal pain. Pain is sudden in onset, sharp or stabbing in nature radiating to back and doesn't get relieved by analgesics and may be associated with nausea and vomiting. Low grade fever may also be present [8]. Abdominal tenderness is usually found on palpation. Adnexal mass may also be felt on examination. Blood investigations are usually normal, but in later stages due to inflammation, necrosis can lead to leukocytosis or raised ESR or CRP.

Ultrasound is usually the first imaging modality to be done in case of acute abdominal pain. The features of ovarian torsion on ultrasound include heterogeneous ovarian stroma, string of pearls sign, and free fluid in cul-de-sac. Ovarian enlargement of 4 cm is the more consistent ultrasound feature in ovarian torsion. Doppler analysis of the ovarian arterial and venous waveforms is considered as an accurate tool for the evaluation of ovarian torsion and Doppler studies could be helpful in predicting the viability of adnexal structures by depicting blood flow within the twisted vascular pedicle [9].

Ultrasound and Doppler studies can neither confirm nor exclude all the cases of ovarian torsion. Thus, direct visualization by laparoscopy is considered as the gold standard to diagnostic evaluation and management of ovarian torsion.

Conservative treatment that consists of untwisting the adnexal followed by cystectomy or cyst aspiration is the management of choice [10]. Detorsion should be considered as the procedure of choice for most cases of ovarian torsion in children. This ovary sparing approach after detorsion of ischemic ovaries is considered safe and effective in both adults and children, since most of the cases are seen in women of reproductive age group [11]. Radical surgery should be considered where there is suspicion of malignancy or when women have completed her family. In older women and postmenopausal women, oophorectomy is recommended as the treatment of choice.

Conclusion

Acute abdomen is one of the most common presentations in routine gynecological practice. Early diagnosis prevents morbidity and mortality and ultrasound with Doppler is most common noninvasive technique in diagnosis of ovarian torsion. Laparoscopy is gold standard in evaluation and management in stable patients, Laparotomy being the ultimate procedure to preserve reproductive function.

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