

Ovarian Conservation in Twisted Adnexa: A Retrospective Analysis at a Tertiary Care Teaching Hospital

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ABSTRACT

Ovarian torsion has been observed in approximately 2-3% of adolescents and young women in the reproductive age. Recently many cases have been reported during prepubertal and postmenopausal cases. Especially "Twisted ovarian cyst" presents a medical emergency and may imply torsion of ovary or adnexa.

In this study we reported seven cases of young girls aged 6-23 years. They presented with acute abdomen pain. A 6-year-old girl was managed by laparotomy and rest six cases were managed laparoscopically. All the cases had twisted adnexa with hemorrhages in the ovary. The 6-year-old girl had dermoid cyst. All the patients with twisted adnexa underwent untwisting of adnexa with ovarian cystectomy. The twisted side ovary was than fixed to the lateral pelvic wall.

Keywords: Ovarian Torsion, Laparotomy, Laparoscopy.

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Article History:

Received: 09-04-2018, Revised: 07-05-2018, Accepted: 27-05-2018

Access this article online

Website: www.ijmrp.com	Quick Response code 
DOI: 10.21276/ijmrp.2018.4.3.037	

INTRODUCTION

Adnexal torsion is reported in adolescents and young women in the reproductive age.¹ This medical attention needed when ovary, with or without the fallopian tube rotates along its vascular pedicle, leading to partial or complete occlusion of the blood supply.

It is important to diagnose ovarian torsion in early stage else blood supply becomes compromised resulting in tissue necrosis. An immediate diagnosis and treatment is needed to save the ovary. Ovarian torsion can occur at all ages; however viable adnexa can be conserved for future reproductive potential of young girls. The twisting of the ovary may result in a normal ovary or an ovary with functional pathology. The torsion on a normal ovary is more frequent in children because of the greater length of the ovarian pedicle.^{2,3} The clinical presentation of ovarian torsion is unspecific and, at the present time, there is not a reliable method to confirm the diagnosis pre-operatively, sometimes diagnosis is during surgery only. The association of an ovarian cyst is a common finding in twisted ovaries.^{4,5} Laparoscopic management is the gold standard for the diagnosis of Adnexal torsion.^{6,7} Untwisting (detorsion) should be an approach; however, it is important to find the correct direction to do it.⁸ Conservative surgery seems to be the best surgical approach to preserve the reproductive potential. The aim of our current study is to report our own outlook on the surgical approach to ovarian torsion in young aged patients and adolescents. We have presented 7 cases after

diagnosis, options for laproscopic interventions and follow-up of the patients for long period of time to check the status of ovaries.

MATERIALS AND METHODS

This study included all cases with ovarian masses surgically treated at Department of Obstetrics & Gynaecology, Meenakshi Medical College Hospital & Research Institute, Kanchipuram, Chennai, Tamilnadu, India. After the Institutional Review Board approval, the informed consent was obtained from all parents prior to the study. Presenting symptoms were analyzed for each patient before clinical examination. Trans-abdominal Ultrasonography (US) and Color Doppler Ultrasonography have been performed in all 7 patients. All the cases were managed by doing untwisting of adnexa with ovarian cystectomy. The twisted side of ovary was then fixed to the lateral pelvic wall.

RESULTS AND DISCUSSION

This prospective study was performed on 7 cases with adnexal torsion. All managed by laparoscopic detorsion, and ovarian conservation with adnexal fixation. Removal of ovary at younger age can be a big mental trauma to the young patients and her family. Emergency laparotomy with removal of adnexa was once the standard of care in twisted adnexa. Laparotomy was slowly replaced by laparoscopy.

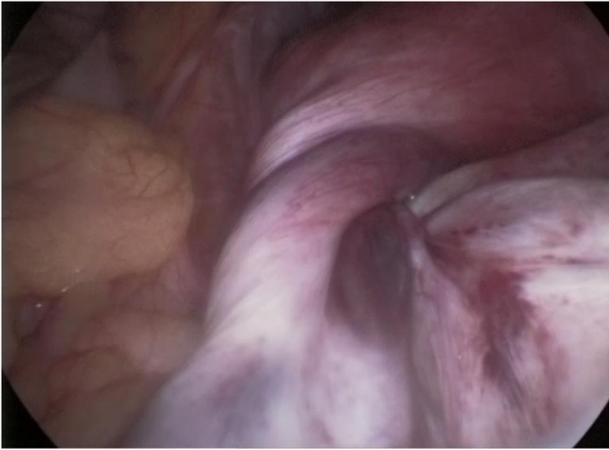


Figure 1: Representation of twisted pedicle



Figure 2: Aspiration of twisted ovarian cyst



Figure 3: Image captured after Untwisting

With the advent of good antibiotics to counter the risk of ovarian abscess in the hemorrhagic congested ovary along with easy accessibility of ultrasound with Doppler, we could take the calculated risk in selected cases. In our study the patients presented with twisted adnexa, Figure-1. Aspiration of the twisted ovarian cyst was carried out, Figure-2 followed by untwisting of pedicle. Figure-3. The patients subsequently followed up with ultrasound on day 5, 15 and 45. All the patients showed normal Doppler in the ovary on day 45. As the presence of vascular flow and the dual blood supply to the ovary could be measured by Doppler ultrasound. Our study analyzed seven such cases where ovarian conservation was done successfully without any significant morbidity.

The study confirmed that laparoscopic detorsion is the treatment of choice, which is supported by other studies in the field.⁹ This article focused on reproductive age group patients, with successful conservation of 100% of the affected ovaries. No patient had any major morbidity in the postoperative period. Most of the patients are in regular follow-up. The follow-up Doppler studies after 1.5 years showed normal and healthy ovaries.

CONCLUSION

Early diagnosis and treatment are paramount to minimize the risk of adnexal torsion in young girls. Ovarian fixation to the lateral pelvic wall after detorsion had no major morbidity in the postoperative period. Conservation of ovary in case of twisted adnexa should be exercised in order to maximize the future reproductive potential.

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Source of Support: Nil. Conflict of Interest: None Declared.

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Cite this article as: Shelmohakar R., Dhawale R E. Ovarian Conservation in Twisted Adnexa: A Retrospective Analysis at a Tertiary Care Teaching Hospital. *Int J Med Res Prof*. 2018 May; 4(3):173-74. DOI:10.21276/ijmrp.2018.4.3.037