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Case Report

Case of ovarian torsion- detorsion- ovarian and round ligament plication to save the ovary

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ABSTRACT

Adnexal torsion is defined as twisting of the ovary and/or tube around usually the utero-ovarian ligament and in case of the ovary the infundibulopelvic ligament. Ovarian torsion is seen in reproductive age group, mainly due to elongated ovarian ligament. Recurrence is more uncommon. This article presents a case of young 23-year-old women presenting with acute pain abdomen, with scan showing ovarian torsion, an emergency laparoscopy was performed, 1 turn of left infundibulopelvic ligament was noted and detorsion performed along with plication of round and ovarian ligament and utero-ovarian ligament plication. This helps in preventing recurrent ovarian torsion, though there is no standard management to prevent recurrent ovarian torsion, plications to some extent prevents recurrent torsion and thus also preserving fertility of women.

Keywords: Torsion, Detorsion, Ovarian ligament plication

INTRODUCTION

Ovarian torsion is a rare but emergency condition in women. Early diagnosis is necessary to preserve the function of the ovaries and tubes and prevent severe morbidity. Ovarian ligament plication is an adjunctive treatment in patients with ovarian torsion with the elongated ovarian ligament.¹

Utero-ovarian ligament plication for elongated and lax ligament is an effective method for decreasing mobility of the ovary and subsequent risk of ovarian torsion.²

CASE REPORT

Here we present a 23-year-old unmarried Mrs. X who presented with an acute abdomen to the emergency department. No history of vomiting or fever and with regular cycles.

However, the initial diagnosis was acute appendicitis. On examination, the following findings were noted: temperature- 96.2 F, pulse rate (PR)- 104 bpm, blood pressure (BP)- 100/60 mmHg, per abdomen examination- soft, tenderness present in right iliac fossa, ultrasonography (USG) showed torsion detorsion sequence with maintained vascularity, and blood investigations showed haemoglobin (Hb)- 11.2 gm/do, total count (TC)- 12600 cells/cumm, platelet- 1.49 lakhs/cumm, and blood group- B negative.

An emergency laparoscopic surgery was scheduled.

Procedure

On diagnostic laparoscopy 1 turn of left infundibulopelvic ligament was noted and detorsion was done. Left ovarian ligament plication was done using vicryl 1-0 and same side round ligament plication was done using vicryl 2-0.

Intra-operative findings

1 turn of left torsion of infundibulopelvic ligament was noted (Figure 1).

Left round and ovarian ligament plication was done (Figure 2).

Plication of utero-ovarian ligament was done (Figure 3).



Figure 1: Picture showing torsion of infundibulopelvic ligament.



Figure 2: Picture showing plication of round and ovarian ligament.

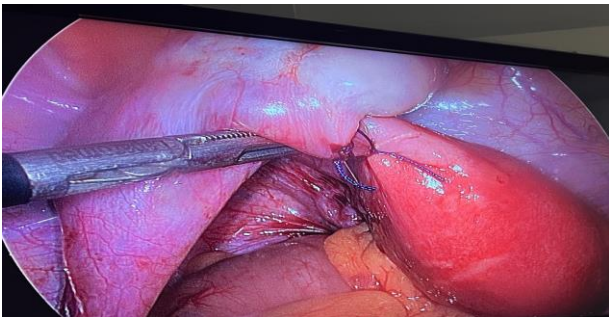


Figure 3: Picture showing plication of utero-ovarian ligament.

DISCUSSION

Ovarian torsion accounts for up to 7.4% of gynaecological emergencies.³ This occurs when the ovary and occasionally the fallopian tube twists around its supporting tissue and vascular supply.⁴ It most commonly presents in women of reproductive age.^{3,5} Timely diagnosis and management are needed to prevent necrosis and preserve

the ovary and therefore fertility. Oophoropexy is a commonly used surgical technique to manage and prevent recurrent ovarian torsion.

Oophoropexy has several techniques. These include plication of the ovarian ligament, fixation of the ovary to the lateral pelvic wall, rear of the uterus, or posterior abdominal wall, or utero-ovarian ligament shortening.^{5,6} Plication of the utero-ovarian ligament may be associated with minimum disruption of the anatomical relationship between the tube and the ovary, therefore possibly having less effect fertility. The benefits of oophoropexy to prevent further torsion versus theoretical risks lack in evidence. The literature states that the risks of oophoropexy may include disruption of blood supply to the fallopian tube, and disruption of physiological relationship between fallopian tube and ovary.⁵

Ovarian torsion must be kept in mind during differential diagnosis in any case of a female patient presenting with lower quadrant abdominal pain, especially if there is a history of ovarian torsion.⁷ In our case, similar to other uterine ligaments, the utero-ovarian ligaments were found as elongated more than expected. In the presence of loose utero-ovarian ligaments if their lengths are thought to be related to ovarian torsion, the shortening of uteroovarian ligament may not be adequate to prevent recurrence, sometimes oophoropexy may be needed as a successful surgical procedure.

CONCLUSION

Ovarian torsion can lead to non-specific symptoms, which can delay the diagnosis. Clinicians must be careful not to miss the diagnosis of acute ovarian torsion in a young patient and they should bear in mind that even a huge cyst could still be twisted. Current evidence on management of ovarian torsion supports ovarian detorsion rather than oophorectomy because the ovary may retain viability after detorsion and the risk of malignancy is low. Plication leads to shortening of this ligament thereby giving less mobility to the gonad. This is likely the preferred technique given that the anatomy of the pelvis is least distorted with this method. The relationship between the tube and ovary remains intact.

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REFERENCES

1. Rangaram P, Gundabattula SR, Bayyrapu VB, Pochiraju M. Ovarian ligament plication for recurrent adnexal torsion. *J Gynecol Surg.* 2015;31:229-31.
2. Seckin SI, Goldstein K, Seckin TA. Ovarian torsion and utero-ovarian ligament plication: A review of technique in a case of suspected recurrent ovarian torsion with elongated adnexa. *JMIG.* 2018;25:S176-S7.

3. Iatrikes EDP, Johns J. An update on the diagnosis and management of ovarian torsion. *Obstet Gynaecol.* 2012;14:229-36.
4. White M, Stella J. Ovarian torsion: 10-year perspective. *Emerg Med Aust.* 2005;17:231-7.
5. Hartley J, Akhtar M, Edi-Osagie E. Oophoropexy for Recurrent Ovarian Torsion. *Case Rep Obstet Gynecol.* 2018;2018:8784958.
6. Hosny TA. Oophoropexy for ovarian torsion: a new easier technique. *Gynaecol Surg.* 2017;14:7.
7. Bozoklu Akkar O, Karakus S, Yildiz C, Imir Yenicesu AG, Cetin M. Recurrent ovarian torsion: a case report. *Basic Clin Sci.* 2013;2:174-6.

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