



Case Report

Successful laparoscopic management of adnexal torsion during pregnancy: a case report

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Introduction

Adnexal torsion is an uncommon cause of surgical emergency during pregnancy. It accounts for 2.7% of all gynecological emergencies. Its incidence is 1 in 5000 pregnancies, occurring more frequently in the first trimester after ovarian hyperstimulation as treatment for infertility. Traditionally adnexal torsion presenting as acute abdomen is managed by laparotomy. We report a case of adnexal torsion that was successfully managed by laparoscopy during pregnancy.

Case report

A 29-year-old primigravida was admitted to the emergency department with 12 weeks of pregnancy. She conceived after controlled ovarian hyperstimulation and IUI for unexplained infertility.

At 12 weeks of gestation, she presented with right lower abdominal pain. She also reported episodes of nausea and vomiting prior to admission. There was no

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history of vaginal bleeding. On examination the woman was afebrile. There was tenderness on palpation of right flank. Deep palpation on that side provoked abdominal guarding. Bimanual examination showed a gravid uterus of 12 weeks size with right adnexal mass and forniceal tenderness. Cervical status was found to be normal. A transvaginal ultrasound was consistent with single intrauterine pregnancy of 12 weeks gestation with right sided adnexal mass of 5-6 cm with mixed echogenicity and free fluid in pouch of Douglas.

Doppler mapping showed absent left ovarian vascular flow which provided evidence in favor of adnexal torsion. The patient was posted for laparoscopic surgery after explaining the risks and benefits to the patient on the same day.

Operative technique

Pneumoperitoneum was created using Veress needle at Palmer's point to prevent injury to the gravid uterus. A central port of 10mm was created in the midline 3-4cm above the umbilicus with two secondary ports of 5mm each on either side at the level of the umbilicus.

The laparoscopic findings showed twisted, gangrenous and edematous right adnexa with 12 weeks size gravid uterus. Ovary was enlarged 5-6cm and hemorrhagic. Both right sided tube and ovary were twisted thrice at the pedicle. (Fig 1) Since the ovary and tube were devitalized beyond salvage an adnexectomy was done.



Laparoscopic view of the gangrenous right adnexa with gravid uterus.

Specimen was retrieved by extending 5mm lateral port. Left tube and ovary were normal.

Postoperative period was uneventful. Since the ovary was removed which contained corpus luteum – before 14 weeks of gestation, the patient was put on parenteral progesterone supplement. Pregnancy is being successfully continued into 2nd trimester.

Discussion

Torsion of adnexa is a well established clinical entity. It is estimated that 12% to 18% of the adnexal torsion occur during pregnancy¹. Cases of adnexal torsion have been reported in association with ovarian hyperstimulation syndrome predisposing factor^{2,3}. The incidence is highest during the first trimester of pregnancy, the condition being rare during second and exceptional during third trimester¹. The risk of ovarian torsion associated with OHSS also seems to increase if the patients do subsequently conceive². It is because of the continuous exposure of a hyperstimulated ovary with endogenous HCG resulting in an increase in ovarian size.

Torsion in pregnancy presents a diagnostic challenge. The accuracy of preoperative diagnosis during pregnancy is only 70%^{1,2}. Although the classic presentation of adnexal torsion is the acute onset of abdominal pain, an adnexal mass and clinical evidence of peritonitis, this triad is usually not present in most of the patients later found to have adnexal torsion. The presenting

findings in most patients were nonspecific and unimpressive, inviting a large differential diagnosis, including appendicitis, pelvic inflammatory disease, hemorrhage into the cyst, ectopic/heterotopic pregnancy. Few of these conditions are not treated surgically contributing to the delay in surgical intervention⁴. Early diagnosis and prompt treatment is crucial in these cases to avoid these young infertile women losing their ovaries. The use of color Doppler sonography has proved useful for such a diagnosis, the main sign being the absence of intraparenchymal ovarian blood flow⁵.

In young and infertile patients a loss of an ovary may be tragic. There are reports of unwinding the adnexa regardless of whether it is ischemic or not². This treatment has been encouraging.

At the present time laparoscopy is the most specific diagnostic tool for evaluating torsion. Laparoscopic adnexal detorsion, not adnexectomy is the procedure of choice unless the tissue is gangrenous as it was in this case.

Laparoscopy during pregnancy is associated with a significantly lower prevalence of postoperative complications than laparotomy. It is not associated with higher rates of abortion, preterm deliveries, IUGR or fetal anomalies in comparison with laparotomy⁶.

References

1. Hibbard LT. Adnexal torsion. *Am J Obstet Gynecol* 1985;152:456-61.
2. Mashlach S, Bider D, Moran O et al. Adnexal torsion of hyperstimulated ovaries in pregnancies after gonadotropin therapy. *Fertil Steril* 1990;53:76-80.
3. Chew S, Ng SC. Laparoscopic treatment of a twisted hyperstimulated ovary after IVF. *Singapore Med J* 2001;42:228-9.
4. Bayer AI, Wiskind AK. Adnexal torsion: can the adnexa be saved? *Am J Obstet Gynecol* 1994;171:1506-11.
5. Bassil S, Steinhart U, Donnez J et al. Successful laparoscopic management of adnexal torsion during week 25 of a twin pregnancy. *Hum Reprod* 1999;14:885-7.
6. Oelsner G, Stockheim D, Soriano D et al. Pregnancy outcome after laparoscopy or laparotomy in pregnancy. *J Am Assoc Gynecol Laparosc* 10;2003:200-4.