

Adnexal Torsion During First Trimester of Pregnancy: A Case Report

Deepa Shanmugam¹, Sabary Priyadharsini Masilamani², Ami Ajay Mehta³, Anusuya Parivakkam⁴

ABSTRACT

Introduction: Adnexal torsion is an emergency condition where the adnexa rotate on its pedicle compromising their blood supply. It is a rare cause of acute abdominal pain during pregnancy and a true obstetric emergency. Here we report a case of adnexal torsion during pregnancy without any predisposing factor.

Case Report: A 22-year-old primigravida at 11 weeks of Gestational Age presented with abdominal pain and vomiting. With the working diagnosis of torsion of ovary, laparotomy was done which revealed torsion of right adnexa thrice for which salpingo-oophorectomy was performed. Her post-operative period was uneventful with a viable intrauterine pregnancy.

Conclusion: The diagnosis of adnexal torsion during pregnancy is often missed due to non-specific clinical features and uncommon objective findings. Treatment options are limited to surgery either by laparoscopy or laparotomy but the former becomes more difficult in the second trimester. Earlier decision to proceed with surgery is difficult due to the diagnostic dilemma and also considering the pregnancy.

Keywords: adnexal torsion, pregnancy, doppler

INTRODUCTION

Adnexal torsion is a rare cause of acute abdomen during pregnancy. The incidence of adnexal torsion is 5/10000 pregnancies.¹ As this condition is very rare, a high index of suspicion is required to arrive at our diagnosis. The clinical findings of torsion are non-specific. The exact role of imaging techniques is debated.² Treatment of adnexal torsion is considered as an emergency because peritonitis and death can result.³ Although it is seen more frequently in patients undergoing ovarian stimulation in the treatment of infertility and in patients who have had an ovarian cyst diagnosed before, here we report a case of adnexal torsion during pregnancy without any predisposing factor.

CASE REPORT

A 22-year-old primigravida presented to our Department of Obstetrics and Gynaecology at 11 weeks of Gestational Age based on her Last Menstrual Period with intractable vomiting and right-sided abdominal pain. She had no fever and gave negative history for vaginal bleeding or discharge. There was no previous history of ovarian cyst or ovarian stimulation. No history of recent sexual intercourse.

On examination, the patient was afebrile with no pallor and edema. Her vital signs were stable. Her cardiovascular and respiratory system was normal. Abdominal examination revealed tenderness on right iliac fossa without guarding and rigidity or palpable mass. On pelvic examination, uterus was

soft and 12 weeks palpable with right forniceal fullness without tenderness. Left fornix was free. Cervix was soft with os closed.

All her blood and urine investigations were within normal limits. Trans-vaginal sonography showed a single live intra-uterine gestation of 11 weeks + 4 days with a simple cyst in right ovary measuring 3.8 × 2.3 cms with decreased vascularity on color Doppler. Because the diagnosis of adnexal torsion cannot be made only by decreased vascularity, we had a diagnostic dilemma. Considering her pregnancy, the decision was made to treat the patient conservatively with close monitoring. Patient had slight improvement of her symptoms initially. But 12 hours later, she developed increasing pain with tachycardia and diffuse tenderness in all quadrants of abdomen. Repeat Trans-abdominal sonography shows increased ovarian volume compared to previous scan with significant free fluid in peritoneal cavity. With the provisional diagnosis of pregnancy with torsion ovary cyst and with possible differential diagnosis of appendicitis, emergency laparotomy was planned. The patient was counselled regarding the risk of abortion related to surgery. Informed and written consent for laparotomy with possibilities of salpingo-oophorectomy was obtained.

On laparotomy, around 50 ml of blood stained fluid noted in the peritoneal cavity. The right adnexa was gangrenous and had undergone torsion three times around its pedicle. Uterus was gravid and left adnexa was normal, appendix was normal. Right salpingo-oophorectomy was performed and sent for histopathology. Histopathological examination confirmed the finding as necrosed ovary and fallopian tube. After laparotomy, patient was administered intramuscular micronized progesterone daily and HCG weekly twice for 2 weeks. Her post-operative period was uneventful with viable intrauterine pregnancy confirmed on her second post-operative day. She is now in her third trimester of pregnancy and on regular antenatal checkup.

DISCUSSION

Adnexal torsion is the condition where the adnexa rotates on its pedicle compressing its blood supply leading to stasis, venous congestion, haemorrhage and necrosis. The signs

¹Associate Professor, ²Post graduate, ³Senior Resident, ⁴Professor, Department of Obstetrics and Gynaecology, Aarupadai Veedu Medical College, Pondicherry-605007, India

Corresponding author: Dr. S. Deepa, B-12, Staff Quarters, Aravind Eye Hospital, Thavalakuppam, Puducherry-605007, India

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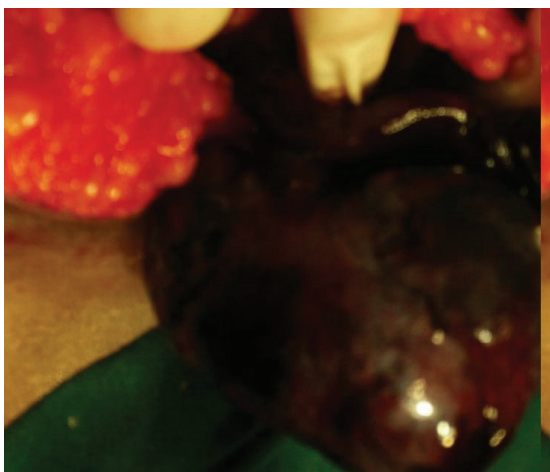


Figure-1: Torsion of Right adnexa with gangrenous appearance

of adnexal torsion include a palpable pelvic mass, signs of localized peritoneal irritation, a low grade fever, and leukocytosis. Preoperative diagnosis is difficult, especially in pregnant women. Patient usually presents with acute abdomen and pelvic examination may reveal a tender cystic mass separate from the uterus. During pregnancy, the clinical symptoms are non-specific and could be confused with other acute abdominal conditions such as acute appendicitis, ruptured corpus luteum cyst, adnexal abscess, ovarian hyperstimulation, urinary obstruction, and ectopic pregnancy. Ultrasonography is the primary imaging modality for evaluation of adnexal torsion. Ultrasonography features of adnexal torsion include a unilateral enlarged ovary, uniform peripheral cystic structures, a coexistent mass within the affected ovary, free pelvic fluid, lack of arterial or venous flow, and a twisted vascular pedicle.⁴ Colour Doppler sonography showing absence of intraparenchymal ovarian blood flow seems to be a promising tool in a diagnosis of adnexal torsion.⁵ However, a decreased blood flow can also indicate an incomplete torsion.

Expedient surgery is the treatment of choice for adnexal torsion. Treatment of adnexal torsion is considered an emergency because peritonitis and death can result. Standard surgical techniques for management of adnexal torsion include laparotomy with detorsion or salpingo-oophorectomy.⁶ Although laparoscopic approach combined with simple detorsion has been described recently, laparotomy and salphingo-ooperec-tomy may sometimes be necessary as in our case.⁷ Several recent reports have described successful conservative management with untwisting of the twisted adnexa.⁸

The decision to proceed to surgery during pregnancy is somewhat complex as in our case, since the well being of both mother and fetus must be taken into account. The risk of any surgery to the pregnancy will depend on the gestational age. In the first trimester when ovarian torsion most often occur in pregnancy, the risk of fetal loss is the smallest with modern anaesthetic techniques. Role of progesterone and other tocolytics during and after surgery is still controversial. However, if the corpus luteum cyst is removed during salpingo-oophorectomy, supplemental progesterone and human chorionic gonadotropin is indicated.⁵

In a study done by Chang et al on surgical intervention for maternal ovarian torsion in pregnancy, out of 20 pregnant women operated for ovarian torsion 12(60%) had term deliveries, 3(15%) preterm deliveries, 1 missed abortion and 4 elective abortions in the first trimester.⁹

CONCLUSION

Adnexal torsion, even though is a rare condition in pregnancy, it should be one of the differential diagnosis of acute abdomen and may occur even in the absence of cysts or any predisposing factors.

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