

Successful Management of Ovarian Cyst Torsion during Pregnancy: A Case Report

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Abstract

In this case we report a 21-year old primigravida with 10 weeks gestational age presenting with torsion of the ovarian cyst. She presented to the antenatal clinic with acute pain abdomen and vomitings. She was diagnosed to have torsion of ovarian cyst during pregnancy and a cystectomy was carried out. Her histopathology report showed hemorrhagic infarction, twisted right ovary with congestion of fallopian tube. Her pregnancy is being followed up and she is currently at 18 weeks of gestation. Although the safety of antepartum surgical intervention has been accepted, abdominal surgery nevertheless carries some risks to a pregnant woman and unborn fetus, and so the choice of management necessitates a weighing of risks based on characterization of the adnexal mass and gestational age.

INTRODUCTION

Ovarian torsion, first described by Kuestner in 1891, results from partial or complete rotation of the ovarian pedicle on its long axis, potentially compromising venous and lymphatic drainage^[1]. Incidence is 5 per 10,000 pregnancies^[2]. We report a case of 21 year old primigravida with 10 weeks gestational age presenting with torsion of the ovarian cyst.

CASE REPORT

A 21 year old Primigravida with 10 weeks of gestational age came to antenatal clinic in view of pain abdomen and vomiting since morning. Her LMP : 8/1/14 , EDD : 15/10/14. Her menstrual cycles were regular. She described the pain as sharp non-radiating type of pain in the right iliac fossa with sudden onset, with no relieving factors. She gave no history of vaginal bleeding or discharge. There was no history of diarrhea, constipation, fever, urinary complaints or any recent illness. She conceived spontaneously. She had regular antenatal checkups. No significant past medical and surgical history noted.

On Examination : She is moderately built, conscious and coherent, Her vitals are stable. On Abdominal examination : Abdomen soft, Tenderness present in the right iliac fossa, No guarding or rigidity. On Local examination : external genitalia healthy. Per speculum : Cervix – healthy.

Bimanual examination: Uterus anteverted, bulky about 8-10 wks size, Mass of about 5x5 cms felt through right fornix., mass was separately felt from the uterus Tenderness present, mass was not moving with movements of cervix.

Investigations : Routine Blood and urine investigations were within normal limits, USG : Gravid uterus, CRL : 1.5 cm, with 9-10 wks gestation. Right ovary : enlarged, 6.0x5.6 cm , with altered echotexture, with no vascularity noted in ovary on colour doppler., Left ovary : normal, No evidence of free fluid in the abdomen. Features suggestive of right ovarian torsion.

With the provisional diagnosis of twisted ovarian cyst with no vascularity, Planned for emergency laparoscopy on 25/3/14.

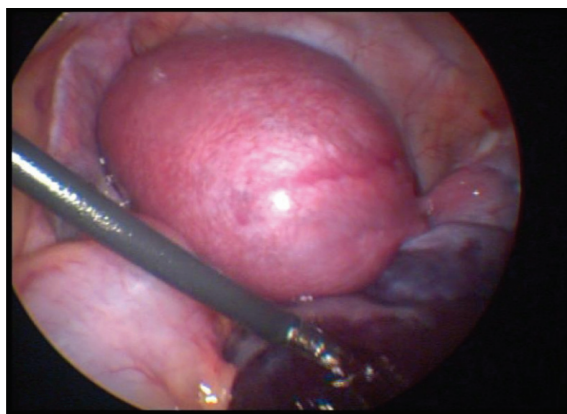


Figure 1 : Gravid uterus with ovarian cyst

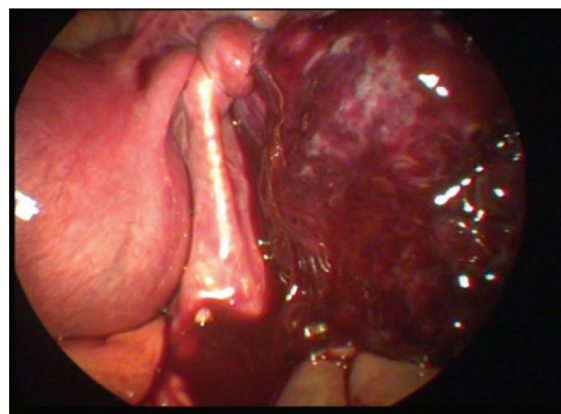


Figure 2 : Torsion

Intra - operative findings: Hemoperitoneum was minimal.,Right ovary : gangrenous torsion ovarian cyst of about 7×6 cm was present, along with twisted right fallopian tube.,Left ovary and tube: normal, Uterus about 8-10 wks size.,Right ovarian cystectomy with right salpingectomy was done.

Postoperative period was uneventful, Inj.HCG, progesterone given. USG done on 7th post operative day: Early single live intra uterine gestation of 10 wks gestational age, Pt was discharged on 7th POD, Histopathology showed - Features are consistent with hemorrhagic infarction, twisted right ovary with congestion of fallopian tube. Follow up : Pt had Regular antenatal visits till date. Now , she is primigravida with 18 weeks of gestational age.

DISCUSSION

The commonest type of ovarian tumours encountered in pregnancy are cystic teratoma, paraovarian cyst, serous cystadenoma, corpus luteal cysts, luteomas etc^[3]. Serous cystadenomas are thin walled, translucent cysts usually unilocular, may have few daughter cysts, varying between 20-30 cms in size. They are often unilateral can be bilateral.10-15% of them are borderline malignant while 20- 40% are malignant.

Differential diagnosis includes: uterine leiomyomas, non pregnant horn of bicornuate uterus, appendiceal abscess, diverticular abscess, pelvic kidney, retroperitoneal tumours, ectopic pregnancy and retroverted gravid uterus^[3].

Complications of the cysts associated with pregnancy are torsion of the cyst, rupture, infection, malignancy, impaction of cyst in pelvis causing retention of urine, obstructed labour and malpresentations of the fetus^[3].

Some studies have suggested surgical intervention for concerns of malignancy, tumor torsion. Tumor rupture, or obstruction of labor^[3,4]. Other studies have recommended the principle of observation, finding that most ovarian masses can either remain uneventful or resolve throughout pregnancy and that the incidence of the above risks was actually low^[3,6]. Its most common cause in pregnancy is a corpus luteum cyst, which usually regresses spontaneously by the second trimester^[7]. Ovarian torsion, therefore, occurs most frequently in the first trimester, occasionally in the second, and rarely in the third^[8].

Management

Cysts less than 6 centimetres in diameter and appearing benign on ultrasound are generally treated conservatively as they may undergo spontaneous resolution. Corpus luteal cysts regress by 12 to 16 weeks. Cysts more than 10 centimetres in size are usually resected due to increased risk of malignancy, rupture or torsion. Management of cysts between 5 to 10 centimetres is controversial. If the cysts contain septae, nodules, papillary excrescences or solid components then resection is recommended. Those with simple cystic appearance may be managed expectantly with serial ultrasound surveillance. However they may require emergency exploratory laparotomy for rupture, torsion or infarction in as many as 50% cases^[6]. With the advent of imaging techniques like high resolution ultrasound, MRI and transvaginal colour Doppler, the expectant management has become much more common.

If the ovarian cyst is diagnosed in the first trimester, it is better to wait till 16 wks when the implantation of pregnancy is more secure and also the cyst may disappear spontaneously. Persisting tumours are treated by cystectomy or ovariectomy as indicated. Ovarian tumour

or cyst can be easily removed till 28 wks of gestation thereafter it is not readily accessible and may precipitate preterm labour. Ovarian cyst which ruptures, or undergoes torsion or if it shows evidence of malignancy, requires immediate surgery, irrespective of the period of gestation^[5].

A simple cystectomy can be performed in the absence of overt malignancy. Previously untwisting of the pedicle was avoided to prevent emboli and toxic substances related to hypoxia, from entering peripheral circulation. But recently, re-establishing ovarian circulation by untwisting, has shown to result in viable ovarian tissue with no systemic complications^[3].

CONCLUSION

Although the safety of antepartum surgical intervention has been accepted, abdominal surgery nevertheless carries some risks to a pregnant woman and unborn fetus, and so the choice of management necessitates a weighing of risks based on characterization of the adnexal mass and gestational age.

CONFLICT OF INTEREST

The authors declared no conflict of interest.

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