



Torsion of Adnexal mass during pregnancy: a case report

Dr Tushar Palve

(Asso Professor,OBGY,GGMC & CAMA Hospital)

Dr Ekta kumari

(2nd yr resident,OBGY,GGMC & CAMA Hospital)

Dr Nidhi Kurkal

(Asst Professor,OBGY,GGMC & CAMA Hospital)

ABSTRACT

Adnexal torsion is a rare case cause of acute abdominal pain during pregnancy. Torsion usually occurs in ovaries with previously diagnosed cysts and tumors, other causes are ectopic pregnancy, theca lutein cyst, luteinized follicular cyst, corpus luteum cyst, hyperstimulated ovaries, benign ovarian cyst such as cystadenomas, endometriomas, mature cystic teratoma. It is rare for a previously normal ovary to undergo torsion in advanced gestation. It is frequently associated with ovarian stimulation for in vitro fertilization (IVF) or with ovarian and tuboovarian masses, mainly of functional origin. In this case we report a 19-year-old primigravida with 12 weeks and 5 days pregnancy with severe left abdominal pain. Transabdominal ultrasound scan reported anechoic tuboovarian mass (14.6x11.8x12cm) with avascular left ovary with torsion. Exploratory laparotomy with left cyst aspiration followed by left salpingo-oophorectomy was done. Her pregnancy is being followed up, till now uneventful. 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.

KEYWORDS :

Introduction

Adnexal torsion is an uncommon cause of gynecological emergencies where the adnexa rotate on its pedicle compromising its blood supply leading to stasis, venous congestion, haemorrhage and necrosis. Moderate size, free mobility and long pedicle are predisposing factors. The exact etiology is obscure. Patient usually presents with acute severe pain abdomen and pelvic examination may reveal a tender cystic mass separate from the uterus. Adnexal masses are diagnosed in approximately 1 to 4% of all pregnancies¹. Torsion of ovarian tumors occurred predominantly in the reproductive age group. As this condition becomes less frequent with early gestational age, a high index of suspicion is required in the first trimester.

Case report

A 19 year old primigravida presented to the antenatal clinic with 12 weeks and 5 days gestation based on her last menstrual period with pain in abdomen since 2 days. Her menstrual cycles were regular. She described the pain as sharp non-radiating type of pain in the left iliac fossa with sudden onset, with no relieving factors. She gave no history of vaginal bleeding or discharge. There was no history of diarrhoea, constipation, fever, urinary complaints or any recent illness. She conceived spontaneously. No history of any ovulation induction drug. After counselling acute appendicitis and renal colic were excluded by general surgery and urology departments. No significant past medical and surgical history noted.

On examination, patient was conscious, coherent with pulse 106/min, blood pressure 120/80 mm of hg, afebrile, cardiovascular and respiratory systems normal. Abdominal examination revealed a cystic mass of 28 week size, more on left side of the lower abdomen with left iliac fossa tenderness and guarding. There were no signs of peritoneal irritation. On vaginal examination, a mass of 28 weeks felt, uterus cannot be felt separately, left adnexal fullness felt. All her blood and urine investigations were within normal limits. Ultrasonography revealed a tuboovarian mass (14.6x11.8x12cm) with bulky avascular left ovary with torsion. It also showed a single intrauterine live fetus of 13 weeks and 3 days. No evidence of free fluid in the abdomen.

The patient was counselled concerning the risk of abortion and the informed consent for abdominal exploration with the possible need for salpingo-oophorectomy was obtained.

With the provisional diagnosis of twisted ovarian mass, emergency exploratory laparotomy was done under spinal anaesthesia. In-situ, there was left sided hydrosalpinx with enlarged, avascular, gangrenous and necrosed left ovary with left tubo-ovarian mass, cystic in consistency, twisted twice on its own axis. After untwisting, hydrosalpinx was aspirated, and left sided salpingo-oophorectomy was performed. The cyst was sent for histopathological examination.

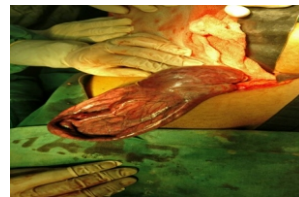


Figure 1- Left tuboovarian mass.

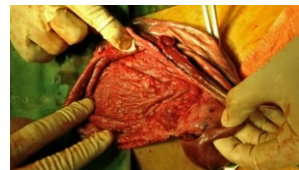


Figure 2-Left tuboovarian cystic wall.

The post operative course was uneventful, and fetal viability was confirmed 3 days post operative and was discharged on 9th post operative day. She is continuing pregnancy and being followed up at regular interval in our antenatal clinic.

Discussion

Adnexal torsion during pregnancy is a rare condition, more common in the second and early third trimester, and exceptional during the first trimester. The symptoms are nonspecific, and can be confused with other acute abdominal conditions such as appendicitis, ureteral or renal colic, cholecystitis and bowel obstruction.

Differential diagnosis of an adnexal mass in pregnancy⁷

Ovarian	Nonovarian
Benign	Ectopic pregnancy
Functional cyst	Paraovarian cyst
Follicular cyst	Leiomyoma

Corpus leutum cyst	Hydrosalpinx
Theca leutin cyst	Tubo-ovarian abscess
Leutomas	Appendiceal abscess or tumour
Hemorrhagic cyst	Fallopian tube cancer
Benign cystic teratomas Serouscystadenomas	Pelvic kidney
Mucinous cystadenoma	Lymphoma
Endometriosis	
Malignant	
Epithelial	
Germ cell	
Sex cord/stromal cell	
Granulosa cell	
Metastatic	
Pseudomixoma peritonei	

The commonest type of adnexal masses encountered in pregnancy are cystic teratoma, paraovarian cyst, serous cystadenoma, corpus luteal cysts, luteomas etc². Hydrosalpinx results from inflammation that occludes the fimbriated end of the fallopian tube. Consequently, intraluminal secretion distend the tube, resulting in an anechoic tubular structure on ultrasound that is usually tapered at the uterine end. And appears like cogwheel in cross section. Early diagnosis is essential as it makes a conservative approach possible. When diagnosis is made earlier, simple detorsion is possible with good functional results. Although the use of colour Doppler sonography, with the main sign of the absence of intraparenchymal ovarian blood flow indicative of adnexal torsion, seems to be a promising diagnostic tool in establishing the diagnosis, a decreased blood flow, which could have been the result of in complete torsion, should not rule out the suspicion of adnexal torsion. Nowadays, MRI appears to be a potential alternative, as it can demonstrate signs of hemorrhagic infarction⁶. 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 fetus². Some studies have suggested surgical intervention for concerns of malignancy, tumor torsion. Tumor rupture, or obstruction of labour^{3,4} Other studies have recommended the principle of observation, finding that most adnexal masses can either remain uneventful or resolve throughout pregnancy and that the incidence of the above risks was actually low^{3,5}. Recently, laparoscopic surgery during advanced pregnancy has been reported to be feasible and safe, however, it needs both skilled personnel with a wide experience in operative gynaecological laparoscopy. Untwisting the adnexa to provide a satisfactory recovery, and also aspiration of adnexal cysts, are recommended as the first interventional alternatives. However they may require emergency exploratory laparotomy for rupture, torsion or infarction in as many as 50% cases³. If any adnexal mass 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 gestation³. Recently, laparoscopic surgery during advanced pregnancy has been reported to be feasible and safe, however, it needs both skilled personnel with a wide experience in operative gynaecological laparoscopy. Untwisting the adnexa to provide a satisfactory recovery, and also aspiration of ovarian cysts, are recommended as the first interventional alternatives

Conclusion

In case of adnexal torsion early diagnosis help to conserve patient's adnexa. . Diagnosis can usually be made on the basis of the characteristic clinical presentation in conjunction with ultrasound evidence of a unilaterally enlarged adnexal mass. and it should not be forgotten that adnexal torsion may occur even in the absence of

ovarian cysts. Treatment options are limited to surgery, either by laparoscopy or laparotomy, but the former becomes more difficult after second trimester.

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