

## Adnexal torsion in a first-trimester pregnant patient without any predisposing factor: A case report

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### SUMMARY

*Adnexal torsion is an uncommon case during pregnancy. Torsion usually occurs in ovaries with previously diagnosed cysts or tumors. It is rare for a previously normal ovary to undergo torsion in advanced gestation. Here, we report a case of adnexal torsion during the 9<sup>th</sup> week of pregnancy without any predisposing factors. The patient was admitted to emergency department with mild lower abdominal pain and nausea. With the worsening of clinical and ultrasonographic signs, a right salpingo-oophorectomy was performed. After surgery, the pregnant patient was treated with fluid and appropriate drug supplementations and continuation of the pregnancy was achieved. Adnexal torsion, though rare, should be kept in mind in the differential diagnosis of lower abdominal pain in advanced gestation.*

**Key words:** Adnexal torsion, pregnant

### ÖZET

**Herhangi bir predispozan faktörü olmayan birinci trimester bir gebe hastada adneksiye torsiyon: Bir olgu sunumu**

*Adneksiye torsiyon gebelik boyunca yaygın olmayan bir durumdur. Torsiyon, genellikle daha önce tanı almış kisti veya tümörü olan overlerde görülür. İlerleyen gebelikle beraber, daha önceden normal olan bir overin torsiyone olması çok enderdir. Burada, biz herhangi bir predispozan faktörü olmayan 9 haftalık bir gebelikte adneksiye torsiyon olgusunu sunduk. Hasta acil bölümüne hafif karın ağrısı ve kusma ile başvurdu. Kötüleşen klinik ve ultrasonografik belirtiler ile beraber hastaya sağ salpingo-oofektomi uygulandı. Gebe hasta, operasyonun ardından sıvı ve uygun ilaç destekleri ile tedavi edildi ve gebeliğin devam etmesi sağlandı. Bilindiği üzere ender olan adneksiye torsiyon, alt karın ağrısı olan gebeliklerde ayırıcı tanıda akılda tutulmalıdır.*

**Anahtar kelimeler:** Adneksiye torsiyon, gebe

Adnexal torsion is an uncommon cause of gynecological emergencies where the adnexa rotate on its pedicle compromising its blood supply leading to stasis and venous congestion, haemorrhage and necrosis (1).

It usually occurs during reproductive age with an incidence of %3 among all gynecological emergencies while its incidence is one in 5000 pregnancies, occurring more frequently in the first trimester. The clinical symptoms are non-specific and could be confused with other acute abdominal emergencies (2).

Although it is seen more frequently in patients

undergoing ovarian stimulation for the treatment of infertility and in patients who had an ovarian cyst diagnosed before, here, we report an adnexal torsion case during first trimester pregnancy with no previously known predisposing factors (3).

### CASE REPORT

A 27-year old multigravida woman (gravida 3 para 1 abortus 1; G3P1A1) presented to our emergency department with a mild right lower abdominal pain and nausea of 2 days duration. She had no fever and she gave no history of vaginal bleeding, diarrhea, constipation and any urinary complaints. There was no history of over cyst, ovulation induc-

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tion therapy or any operation. After counselling acute appendicitis and renal colic were excluded by general surgery and urology departments.

On examination, the patient was afebrile and her vital signs were stable. Abdominal examination revealed mild tenderness on palpation in the right lower quadrant. Deep palpation on this side provoked no abdominal guarding. On vaginal examination, cervix was painful with movement. No periappendicular inflammation was detectable and no bowel dilatation or ascites were seen on abdominal ultrasound scan. A vaginal ultrasound scan revealed a single 9 week CRL corresponded to gestation with regular heart rate at 162/min. A large (6.6x6.4 cm) anechoic cyst with regular wall and surrounded by a scant amount of ovarian tissue was discovered in the pouch of Douglas and left adnexia was normal with no cystic-solid formation (Figure 1).

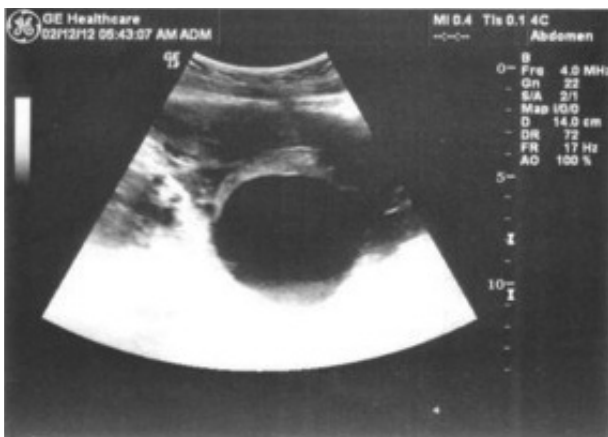


Figure 1. Transvaginal view of right ovary, anechoic cyst with regular wall and surrounded by a scant amount of ovarian tissue.

Colour Doppler sonogram showed decreased blood flow in the adnexal mass. Laboratory tests were as follows: white blood cell count (WBC), 19.000/mm<sup>3</sup>; haemoglobin, 11.5 g/dl, and hematocrit, 35.4% whereas c-reactive protein, liver-kidney enzymes, ionograms were within their normal ranges. Urinalysis was unremarkable. Because of the adnexal torsion can not be diagnosed with any certainty only on the basis of decreased vascular flow, it was decided to treat the patient with pain killers and serums, which gave a slight improvement in

the symptomatology. Eight hours later, on repeated vaginal ultrasound examinations, increases in cyst dimensions and free fluid with coagulum surrounding the cyst were seen. As for laboratory test results, haemoglobin decreased to 10.5 gr/dl, hematocrit to 29.7% and white blood cell count increased to 22.000/mm<sup>3</sup>. With the provisional diagnosis of torsion, emergency laparotomy was performed under general anaesthesia through Pfannenstiel incision. Minimal blood-stained peritoneal fluid was noted on opening the abdomen. The right adnexia localized in the Douglas recess, and measured about 8x8 cm diameters. It was gangrenous and had undergone torsion three times on its pedicle, and the right fallopian tube was hydroptic (Figure 2).



Figure 2. Macroscopic view, gangrenous enlarged ovary and fallopian tube.

The appendix and the left adnexia were normal in appearance. It was decided that untwisting the adnexa would be ineffectual because of widespread necrosis, so a right salpingo-ovariectomy was performed. The material was sent to pathology for examination. Her histopathology report confirmed a gangrenous ovary and fallopian tube and the patient experienced an uneventful postoperative period. After establishment of bowel movements, the patient was discharged from the hospital two days after her admittance.

After laparotomy, because of excision of corpus luteum, intramuscular proluton depot 500 mg/2 ml was administered once a week, intravenous 2000 cc fluid od was given until discharge, oral progesterone in a total 600 mg was started until 13-14 gestational week, and indomethacin 25 mg suppositories were applied three times a day for three days. Control ultrasound scan revealed regular fetal heart rate.

## DISCUSSION

Diagnosis of adnexal torsion can not be made only by non-specific symptoms common in pregnancy. Early diagnosis is essential as it maintains a conservative approach. When diagnosis is made early, 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, seems to be promising in establishing the diagnosis, while a decreased blood flow, which could have been the result of incomplete 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 infarction <sup>(4)</sup>.

Recently, laparoscopic surgery during advanced pregnancy has been reported to be feasible and safe, however, it needs skilled personnel with wide experience in operative gynecological laparoscopy and also sophisticated equipment <sup>(5)</sup>.

Untwisting the adnexa which provides a satisfactory recovery, and aspiration of ovarian cysts, if present, are recommended as the first alternatives of surgical treatment. In our case, because of lack of laparoscopic experience on a pregnant patient,

we performed a laparotomy with Pfannenstiel incision, without attempting to untwist the adnexa because of widespread necrosis <sup>(6)</sup>.

## CONCLUSION

An early diagnosis might have help to conserve patient's adnexa. Though it is an extremely rare problem in pregnancy, adnexal torsion should be taken into consideration in the differential diagnosis of abdominal pain and it should not be forgotten that adnexal torsion may occur even in the absence of previous ovarian cysts.

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