

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

Erhan KARAALP (\*), Nese YUCEL (\*), Fuat DEMIRCI (\*\*), Esra AYDIN (\*), Birgul KARAKOC (\*\*)

## SUMMARY

**Introduction:** Adnexal torsion is an uncommon case during pregnancy. Torsion usually occurs in ovaries with previously diagnosed cysts and tumors. It is rare for a previously normal ovary to undergo torsion in advanced gestation.

**Case presentation:** 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.

**Conclusion:** Adnexal torsion, though rare, should be kept in mind in the differential diagnosis of lower abdominal pain in advanced gestation.

**Key words:** Adnexal torsion, pregnancy, salpingo--oophorectomy

## ÖZET

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

**Amaç:** Adneksiyel kitleler gebelik sırasında sık gözlenmez. Genellikle öncesinde teşhis edilmiş kist ve tümör zemininde over torsiyonu olur. Gebeliğin ileri dönemlerinde normal ovaryel zeminde torsiyon gelişmesi nadirdir.

**Olgu sunumu:** Burada herhangi bir predispozan faktör olmadan 9 haftalık gebede gelişen adneksiyel torsiyon olgusunu sunuyoruz. Hasta acil servise hafif altabdominal ağrı ve bulantı şikayeti ile başvurdu. Klinik durumunun ultrason bulgularının kötüleşmesi sonrasında, hastaya sağ salpingo-overektomi uygulandı.

**Sonuç:** Gebeliğin ileri dönemlerinde alt abdominal ağrının ayrıntı tanısında adneksiyel torsiyon akla getirilmelidir.

**Anahtar kelimeler:** Adneksiyel torsiyon, gebelik, alt abdominal ağrı

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.

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.

Although it is seen more frequently in patients un-

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

## CASE PRESENTATION

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 gave no history of vaginal bleeding, diarrhea, constipation and any urinary complaints. There was no history of over cyst, ovulation induction therapy or

**Geliş tarihi:** 04.09.2012

**Kabul tarihi:** 14.01.2013

\*Department of Obstetrics and Gynecology, Goztepe Education and Research Hospital, \*\*Kadikoy Sifa Health Group

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 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 corresponding to a fetus with regular heart rate at 162/min. A large (6.6 x 6.4 cm) anecho-

ic 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).

The Colour Doppler sonogram showed decreased blood flow in the adnexal mass. The laboratory workup showed a white blood cell count of 19.000/mm<sup>3</sup>, haemoglobin of 11.5 gr/dl, hematocrit 35.4 % whereas C-reactive protein, liver-kidney enzymes, ionogram were within their normal ranges. Urinalysis showed normal urine parameters. 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, increased cyst size, and free fluid with coagulum surrounding the cyst were seen. In the laboratory control tests, 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 with Pfannenstiel incision. Minimal blood-stained peritoneal fluid was noted on opening the abdomen. The right adnexia localized in the Douglas pouch and measured about 8x8 cm. It was gangrenous and had undergone torsion three times around its pedicle, the right fallopian tube was hydropic.

The appendix and the left adnexia were normal in appearance. It was decided that untwisting the adnexa would be ineffectual because of widespread necrosis, 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 recovery of bowel movements the patient was discharged from the hospital two days after his admission.

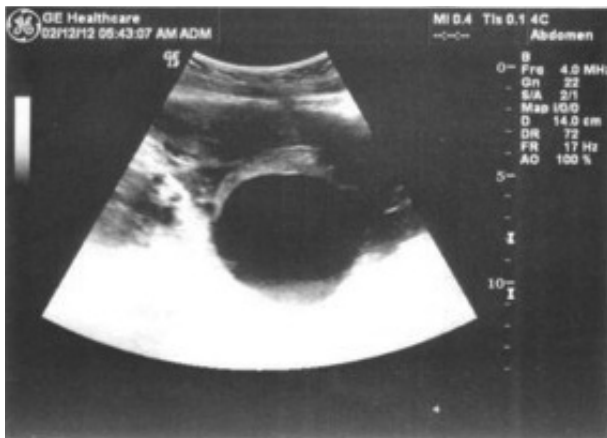


Figure 1. Transvaginal view of right ovary, anechoic cyst with regular wall and surrounded by a scant amount of ovarian tissue.



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

## MANAGEMENT

After laparotomy, because of excision of corpus luteum, intramuscular Proluton depot ® 500 mg/2 ml was administered once a week, intravenous 2000 cc fluid was given every day until discharge, totally 600 mg oral progesterone was started until 13.-14. gestational weeks, and indomethacin 25 mg suppository was prescribed three times a day for three days. On control ultrasound scan, regular heart beats were observed..

## DISCUSSION

Diagnosis of adnexal torsion is hardly possible by noting non-specific symptoms common in pregnancy. 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 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.

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 gynecological laparoscopy and also sophisticated armamentarium .

Untwisting the adnexa to provide a satisfactory recovery, and also aspiration of ovarian cysts, are recommended as the first interventional alternatives.

In our case, because of the lack of laparoscopy experience on a pregnant patient, we performed a laparotomy with Pfannenstiel incision, and did not attempt to untwist the adnexa because of widespread necrosis.

## 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 ovarian cysts.

## REFERENCES

1. **Kolluru V, Gurumurthy R, Vellanki V, Gururaj D.** Torsion of ovarian cyst during pregnancy: a case report. *Cases Journal* 2009;2:9405. <http://dx.doi.org/10.1186/1757-1626-2-9405> PMID:20090873 PMCID:2809077
2. **Silja A, Gowri V.** Torsion of a normal ovary in the third trimester of pregnancy: a case report. *J Med Case Reports* 2008;2:378. <http://dx.doi.org/10.1186/1752-1947-2-378> PMID:19063736 PMCID:2615036
3. **Giulini S, Dante G, Xella S, La Marca A, Marsella T, Volpe A.** Adnexal Torsion during Pregnancy after Oocyte In Vitro Maturation and Intracytoplasmic Sperm Injection Cycle. *Case Report Med* 2010; <http://dx.doi.org/10.1155/2010/141875>
4. **Bassil S, Steinhart U, Donnez J.** Successful laparoscopic management of adnexal torsion during week 25 of a twin pregnancy. *Hum Reprod* 1999;14:855-7. <http://dx.doi.org/10.1093/humrep/14.3.855>
5. **Hasiakos D, Papakonstantinou K, Kontoravdis A, Gogas L, Aravantinos L, Vitoratos N.** Adnexal torsion during pregnancy: report of four cases and review of the literature. *J Obstet Gynaecol Res* 2008;34(4 Pt 2):683-7. <http://dx.doi.org/10.1111/j.1447-0756.2008.00907.x> PMID:18840181