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 undergoing 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

- **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

- **Amaç:** Adneksiyal 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.

- **Sonuç:** Gebelikin ileri dönemlerinde alt abdominal ağrıın ayrıtıcı tanısında adneksiyal torsiyon akla getirilmelidir.

- **Anahtar kelimeler:** Adneksiyal torsiyon, gebelik, alt abdominal ağrı
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) 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).

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$^3$, 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$^3$. 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 appereance. 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.
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