

Ovarian Torsion in the Late Second Trimester of a Twin Pregnancy in a Polycystic Patient: Detorsion via Paramedian Incision

Polikistik İkiz Gebeliği Olan Bir Hastanın İkinci Trimester Sonunda Olan Overyan Torsiyonu ve Paramedian İnsizyonla Detorsiyonu

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We present a rare case of ovarian torsion at the end of the second trimester of pregnancy in a polycystic patient treated with clomiphene citrate. A 29-year-old pregnant woman in the 24th week of twin gestation was admitted to our clinic with acute onset of lower colic abdominal pain, nausea and vomiting. She had conceived following an ovulation induction with clomiphene citrate for polycystic ovarian syndrome. With a presumptive diagnosis of left adnexal torsion, surgery was performed via a left paramedian incision. On surgical exploration the left ovary was ischemic and edematous and its pedicle was seen to be twisted around itself three times. Although as being very congested, it rapidly reperfused following untwisting and was conserved. The management of these cases should be as conservative as possible and paramedian incision can be a prompt choice in unilateral cases.

Key words: Clomiphene citrate; ovarian torsion ; second trimester.

Bu yazıda, klomifen sitratla tedavi edilen polikistik over sendromlu bir hastanın ikinci trimester sonundaki overyan torsiyonu sunuldu. Yirmi dokuz yaşında, 24 haftalık ikiz gebeliği olan hasta akut başlayan abdominal ağrı, bulantı ve kusma şikayetleriyle kliniğimize başvurdu. Hasta polikistik over sendromu olduğu için klomifen sitrat tedavisiyle ovulasyon indüksiyonunu takiben gebe kalmıştı. Sol adneksiyel torsiyon tanısı konularak sol paramedian insizyonla ameliyata alındı. Cerrahi eksplorasyon sırasında sol over iskemik ve ödematöz görünümdeydi ve kendi etrafında üç kere dönmüştü. Detorsiyone edildikten sonra yeniden kanlandığı izlendi. Böyle vakalarda mümkün olduğu kadar konservatif davranılmalıdır ve unilateral olgularda paramedian insizyon bir seçenek olabilir.

Anahtar sözcükler: İkinci trimester; kolomifen sitrat; overyan torsiyonu.

Ovarian torsion is usually seen in reproductive women with a high prevalence in young prepubertal and adolescent girls. However, 10-20% of cases occur in pregnant women and especially in the first trimester. Its incidence is 1 in 5.000 during pregnancy, occurring mostly after ovarian stimulation for infertility treatment.⁽¹⁾

The diagnosis of ovarian torsion is difficult due to non-specific symptoms and easily confused with other causes of the acute abdomen. Although color Doppler findings might help in preoperative evaluation,⁽²⁾ the excessively developed uterus with hardly localized adnexa especially in advanced weeks of pregnancy may conceal the fin-

dings. Though the management of ovarian torsion during pregnancy were usually by means of laparotomy, Bassil et al.⁽³⁾ as well as Pinto and colleagues⁽⁴⁾ reported prompt laparoscopic detorsion of such cases.

In this case report, we describe a case of ovarian torsion at the end of the second trimester of pregnancy which was managed by laparotomic detorsion via a left paramedian incision.

CASE REPORT

A 29-year-old woman, gravida 1, parity 0, was admitted to our clinic with acute onset of lower colic abdominal pain, nausea and vomiting. She was in the 24th week of twin gestation and had conceived following an ovulation induction with clomiphene citrate for polycystic ovarian syndrome. She defined that she also experienced a similar attack three weeks ago. At that time, she had a diagnosis of urinary tract infection in another hospital and was treated with intravenous hydration and antibiotic. Her symptoms relieved and she felt well until this episode of pain.

On physical examination, abdominal tenderness in left lower quadrant without findings of peritoneal irritation was noted. She was afebrile (36.4°C). Moderate degree uterine contractions were present and the cervix was 2 cm dilated. The findings of two dimensional ultrasonography (Logic 500, GE Medicals) revealed alive 24-weeks twin pregnancy. Although the right adnexa were normal, the left ovary was slightly enlarged without evidence of peripheral cystic formations.

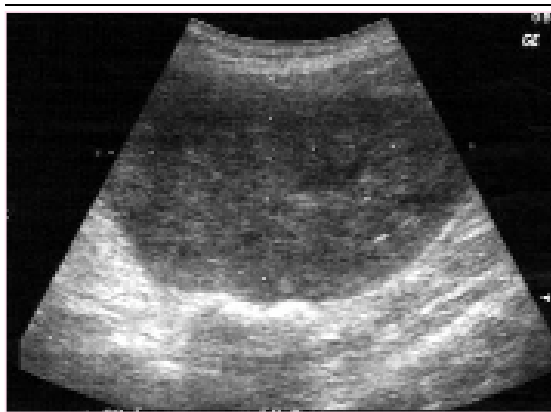


Fig. 1. Enlarged left ovary measuring 93.5x57.3 mm on transabdominal sonography.

Left and right ovarian measurements were 52.5x25.4 mm and 39.2x25.0 mm respectively. Laboratory results showed a white blood cell count of 9.000/mm³. Hemoglobin, hematocrit and platelet counts were 9.5 gr/dl; %31; 153.000 respectively. Urine analysis revealed 9-10 leukocytes, 15-20 epithelium.

Urinary system sonography (Logic 500, GE Medicals) was normal except minimal physiological dilation on left side. Doppler imaging (Logic 500, GE Medicals) showed normal left and right ovarian vascular flow patterns. Because the exact diagnosis of the case could not be put forward, the patient was hospitalized and treated with intravenous hydration, antispasmodic, antibiotic and analgesic medications. To alleviate uterine contractions, nifedipine 30 mg loading dosage with 20 mg every six hours was started. After a minor improvement in the symptoms for twenty four hours, the intensity of pain began to increase again with concomitant nausea and vomiting attacks. Control sonography revealed a more enlarged 93.5x57.3 mm left ovary with diminished vascular flow (Fig. 1). With a presumptive diagnosis of left adnexal torsion, surgery was performed via a left paramedian incision. On exploration, the findings were consistent with preoperative diagnosis. The left ovary was ischemic and edematous and its pedicle was seen to be twisted around itself three times. Although as being very congested, it rapidly reperfused following untwisting and was conserved. The contralateral ovary could be seen hardly and was normal. Due to the risk of trauma to the ovary and consequent bleeding, it was given up to place a stay suture. The post-operative course was normal and the patient is on 31st weeks of her gestation with an uneventful course.

CONCLUSION

With the increasing use of ovarian stimulation protocols in the management of infertility, ovarian enlargement and subsequent risk of adnexal torsion became more apparent.⁽⁴⁾ Although, this emergency condition is rarely seen during pregnancy, it is much probable to be faced with such a case during the first rather than the second or third trimesters of gestations.⁽²⁾ As a result of the characteristics of most stimulation protocols, the vast majority of reported cases were defined after

the use of gonadotropins as follicle stimulating agents.⁽⁵⁾ Our case was defined at the late second trimester of gestation in a patient with polycystic ovary who conceived after a simple ovarian stimulation protocol with clomiphene citrate. From this side of view, it was a very unusual case for us. When it was thought retrospectively, it is meaningful for a polycystic ovary which is already larger than a normal one could easily twisted around itself when stimulated. However it was a very surprising experience for us to face with such a case, months after the stimulation. Although we are not sure whether a true relationship exists between polycystic ovary, clomiphene citrate and ovarian torsion in a twin pregnancy; in the light of aforementioned literature, it seems to be highly probable.

Color Doppler sonography can be helpful in the diagnosis of this condition. Although the findings may vary according to the degree of vascular involvement, absence of intraparenchymal ovarian blood flow is diagnostic. However, due to the double arterial vascular supply of the ovary and the fact that the flow is highly dependent on the stage of torsion and degree of vascular compromise, decreased flow should not rule out the diagnosis of adnexal torsion.⁽²⁾ In our case, probably due to early or partial torsion and occlusion of only venous flow, with preservation or double arterial supply of the left ovary, the first Doppler imaging showed normal vascular flow. Control sonography showed diminished intraovarian blood flow of left ovary consistent with further compromise of vascular supply.

Early diagnoses of these cases are very important for the conservation of ovarian tissue in a young woman and delayed treatment does not permit preservation of ovarian tissues. However, it has also been stated that the conservative approach mostly simple detorsion when applied to the ischemic and hemorrhagic adnexa can provide improved functional results.⁽⁵⁾ In our operation, we also managed conservatively and simple detorsion was sufficient for reperfusion of ovarian blood flow and subsequent improvements in appearance gave hope for the future expectation of optimum hormonal function.

In pregnancy, the ovaries are displaced laterally and limited in their movements due to the enlarged uterus. This condition causes a stepwise rotation in torsioned cases and the findings to be obscured for a while, necessitating hospitalization and close monitorization of the patients.⁽³⁾ With further deterioration in vascular flow, the characteristic symptoms and signs of the disease become apparent. In some cases, torsion tends to resolve spontaneously with improvement in the findings of the patients and abolish a further intervention. In our case, since a definite diagnosis could not be made on admission, expectant management option was chosen. However, further increase in the pain and consistent findings of the ovarian torsion made surgery necessary for the patient.

The traditional management of ovarian torsion has been the use of laparotomy. However in early gestational weeks, laparoscopy can offer a reliable alternative due to less morbidity and shorter hospitalization time of the patient. On the other hand, advanced gestation like in our case, can load technical difficulties to this procedure with an increased risk of harm to uterus and fetus. Positional manipulations and anesthetic interventions can be much riskier and accidental injuries are most likely to occur.⁽³⁾ For these reasons; in our case, we chose laparotomy and reached to the left adnexa with left paramedian incision. In our opinion, the choice of the type of incision can change according to the past history of the patient, findings in the index case and experience of the surgeon. Although mostly used ones are Pfannenstiel and midline incision, we preferred to use a left paramedian incision to sufficiently expose the left adnexa.

In conclusion, though it is a rare condition to see an ovarian torsion in late second trimester in a twin gestation, it must be suspected in patients with a history of ovarian hyperstimulation. Beside the mostly accused gonadotropins, the usage of clomiphene citrate in a polycystic ovarian patient can also result with the same picture. The management of these cases should be as conservative as possible and paramedian incision can be a prompt choice in unilateral cases.

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