

# First Trimester Pregnancy Complicated with Bilateral Ovarian Abscess: Case Report

## Bilateral Ovaryen Apse ile Komplike Olmuş Birinci Trimester Gebelik

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**ABSTRACT** Tuboovarian abscess accounts for as many as 2,2% of admissions to urban hospitals, while postoperative abscesses occur following 0,7-4,0% of major gynecological operations. A 27 year old pregnant patient (gravida 1 para 0; G1P0) presented to our emergency department with a mild bilateral lower abdominal pain and nausea of 2 days duration. Therefore, increased white blood cell count and C-reactive protein, ongoing febrile periods with no response to antibiotherapy made an operation inevitable. Laparotomy was performed under general anaesthesia with median incision. Her histopathology report showed compatibility with abscess formation and the culture of the abscess revealed *E. coli*. Since a delay in diagnosis might cause loss of fetal heart beats, stillbirth, neonatal morbidity and mortality; professionals should suspect a pelvic abscess as a casual of lower quadrant abdominal pain in pregnancy.

**Key Words:** Pregnancy complications; abdominal abscess; pregnancy trimester, first

**ÖZET** Postoperatif apseler majör jinekolojik ameliyatlarda %0,7-4,0' ünü oluştururken, tuboovaryen apse kentsel hastanelere başvuruların %2,2' sini oluşturur. 27 yaşında bir gebe (gravida 1 para 0; G1P0) iki taraflı alt kadran karın ağrısı ve 2 gündür kusma şikayeti ile acil bölümümüze başvurdu. Beyaz küre sayımı ve C-reaktif protein artışı, antibiyoterapiye cevap vermeyen devam eden febril dönemler operasyonu kaçınılmaz kıldı. Laparotomi genel anestezi altında orta hat insizyonu ile yapıldı. Patoloji apse ile uyum gösterirken apse kültüründe de *E.coli* üredi. Tanıda bir gecikme fetal kalp atışlarının kaybı, ölü doğum, yenidoğan morbidite ve mortalitesine neden olabileceğinden; uzmanlar alt kadran karın ağrısı olan her gebede pelvik apseyi de dışlamalıdır.

**Anahtar Kelimeler:** Gebelik komplikasyonları; abdominal apse; gebelik trimesteri, birinci

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**T**uboovarian abscess (TOA) accounts for as many as 2,2% of admissions to urban hospitals, while postoperative abscesses (POAs) occur following 0,7-4,0% of major gynecological operations. Pelvic abscesses are associated with significant acute morbidity and serious long-term sequelae, including adhesion formation, chronic pelvic pain, and impaired fertility.<sup>1,2</sup> Contemporary management of an unruptured TOA consists of treatment with intravenous broadspectrum antibiotics. Persistence of symptoms or suspected rupture of TOA requires laparoscopy or laparotomy, with drainage of the abscess and excision of infected tissues.<sup>3,4</sup>

Any situation that weaken human immun system, may be result as an abscess in patients who have pelvic inflammatory disease previously.<sup>5</sup> As

pregnancy is one of these situations, pelvic abscess must be kept in mind as a differential diagnosis in pregnant patients with lower quadrant abdominal pain.

## CASE REPORT

A 27 year old pregnant patient, M.A. (gravida 1 para 0; G1P0), presented to our emergency department with a mild bilateral 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 previous over cyst, ovulation induction therapy or any operation. After counselling, acut appendicitis and renal colic were excluded by general surgery and urology departments.

On examination, the patient has 37,5 C fever and her other vital signs were stable. Abdominal examination revealed mild tenderness on palpation in lower quadrants. Deep palpation on these sides 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. Then, vaginal ultrasound scan revealed a single 13 week CRL corresponded to gestation with regular heart rate at 162/min. A large (5,14 x 5,05 cm) hypoechoic cyst with regular thick wall in left ovary and a 3,24 x 3,0 cm isoechoic cyst were discovered in right ovary (Figure 1 and Figure 2).

With the provisional diagnosis of endometrioma the patient was observed for four days in hospital. The laboratory workup showed a white blood cell count of 13,400/mm<sup>3</sup>, haemoglobin of 9,8 g/dl, hematocrit %28,8, C-reactive protein of 13,0 g/dl, whereas liver-kidney enzymes and ionogram were within the normal range. Urine analysis showed normal parameters. Ceftriaxone IV 2 x 1 gr, which was ordered by infectious diseases department, gave no improvement in the symptomatology. In the fifth day, the laboratory workup showed a white blood cell count of 27,000/mm<sup>3</sup>, haemoglobin of 9,5 gr/dl, hematocrit %26,8, and C-reactive protein of 18,9 g/dl. Magnetic resonance imaging (MRI) which was ordered in the third day of admission reported left ovarian cyst in favor of abscess. Therefore, increased white blood cell count and C-reactive protein, ongoing febrile periods with no response to antibiotherapy made an operation unevitable. Laparotomy was performed under general anaesthesia with median incision. Nearly 14 week in size uterus and minimal serous peritoneal fluid was noted on opening the abdomen. Both the right adnexia and the left adnexia were fixed in the pouche of douglas like kissing ovaries. The appendix was normal in appearance. Both of the two ovarian abscesses were drained by liner incision. The material was sent to pathology for examination. Two hemovac drains were placed into the ovaries passing through the ovarian incisions. Her histopathology report showed compatibility with abscess formation and the culture of the abscess revealed *E. coli*. The patient ex-



FIGURE 1: Transvaginal view of left ovarian abscess, note the thick wall.



FIGURE 2: Transvaginal view of right ovarian abscess.

perienced an uneventful postoperative period. The patient was discharged from the hospital ten days after laparotomy. No trouble was experienced in her regular visits and in the 38<sup>th</sup> week of pregnancy, normal spontan delivery was performed without any problem.

## MANAGEMENT

After laparotomy, intramuscular hydroxyprogesterone caproate depot 500 mg/2ml was done once a week, intravenous 2000 cc fluid in a day was given until discharge, indomethacin 25 mg suppository was performed three times in a day for three days and meropenem 1 g three times in a day was given for ten days. C-reactive protein level decreased to 1,8 from 18,9 g/dl. In daily control ultrasound imagings, heart beats were seen in a regular rate.

## CONCLUSION

As pregnancy is a situation that weaken human immun system, an unknown previous endometri-

oma might be transformed to an abscess formation in this patient with the addition of any other obscure causes.

Except laparotomy, in skilled hands, transvaginal guided aspiration of pelvic abscess or laparoscopic treatment are highly successful techniques with minimal risk to the patient.<sup>6,7</sup>

Follow-up studies are needed to assess the long-term sequelae of abscess treatment, such as infertility, ectopic pregnancy, pelvic adhesions and chronic pelvic pain.<sup>8</sup>

Pregnancy is a condition that pregnant women should be protected against all of types of infections, including pelvic infections. The first signs of the disease are sometimes mild and not specific and laboratory findings may not be conclusive. Since a delay in diagnosis might cause loss of fetal heart beats, stillbirth, neonatal morbidity and mortality; professionals should suspect a pelvic abscess as a casual of lower quadrant abdominal pain in pregnancy.

## REFERENCES

1. Dokmeci F, Cetinkaya SE. [Pelvic infection]. *Turkiye Klinikleri J Gynecol Obst-Special Topics* 2008;1(5):48-56.
2. Turan V, Ergenoğlu M, Yeniel Ö, Terek MC, Ulukuş M. [The assessment of tubo-ovarian abscesses in the Department of Gynecology in Ege University for five years]. *Turkiye Klinikleri J Gynecol Obst* 2009;19(6):349-53.
3. Corsi PJ, Johnson SC, Gonik B, Hendrix SL, McNeeley SG Jr, Diamond MP. Transvaginal ultrasound-guided aspiration of pelvic abscesses. *Infect Dis Obstet Gynecol* 1999;7(5):216-21.
4. Yalcin OT, Tanir HM, Eskalen M. Unruptured pelvic abscesses in pregnancy: report of two cases. *Gynecol Obstet Invest* 2002;53(2):133-4.
5. Cohen CR, Gravelle L, Symekher S, Waiyaki P, Stamm WE, Kiehlbauch JA. Etiology of persistent tubo-ovarian abscess in Nairobi, Kenya. *Infect Dis Obstet Gynecol* 2003;11(1):45-51.
6. den Boon J, Kimmel CE, Nagel HT, van Roosmalen J. Pelvic abscess in the second half of pregnancy after oocyte retrieval for in-vitro fertilization: case report. *Hum Reprod* 1999;14(9):2402-3.
7. Al-Kuran O, Beitawi S, Al-Mehaisen L. Pelvic abscess complicating an in vitro fertilization pregnancy and review of the literature. *J Assist Reprod Genet* 2008;25(7):341-3.
8. Birchard KR, Brown MA, Hyslop WB, Firat Z, Semelka RC. MRI of acute abdominal and pelvic pain in pregnant patients. *AJR Am J Roentgenol* 2005;184(2):452-8.