Unilateral Tubal Obstruction Associated with Contralateral Ectopic Pregnancy

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Ectopic pregnancy is one of the pregnancy related complications, seem to be increased in recent years due to gradual increase in ART(Assisted Reproductive Techniques) cycles. An interesting case of unilateral tubal obstruction with contralateral ectopic pregnancy occurence is presented to our clinic. It is postulated that ectopic pregnancy occured in the contralateral part as a result of oocyte migration transperitoneally. The case is presented as 35 year-old women with a history of IVF(in vitro fertilization) treatment as a result of tubal factor infertility. In the diagnosis of ectopic pregnancy cases, the most important point is the high index of ectopic pregnancy suspicion. Ectopic pregnancies should be evaluated with
associated risk factors and treated accordingly with defined protocols.
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Key Words: Pregnancy, Ectopic, Reproductive Techniques, Assisted, Fertilization in Vitro

Ectopic pregnancy is one of the pregnancy related complications. It is seen mostly in women aged between 35 to 44 years and shows a significant increase in its incidence during the past two decades. Between 1997-1999, maternal mortality due to ectopic pregnancy is reported to be 12.2% in UK. Etiologic risk factors are previous PID(pelvic inflammatory disease), current IUD(intrauterin device) use, tubal damage due to previous surgery and smoking. Incomplete tubal ligation, previous tubal surgery for infertility, partial salpingectomy and reanastomosis after sterilization have been proven to rise incidence of ectopic pregnancy. Also, increased risk of ectopic pregnancy after surgery due to non-gynecologic causes can be explained by postoperative pelvic adhesion formation. Recently, increased incidence of sexually transmitted disease and ART cycles are associated with increased ectopic pregnancy incidence. In ART cycles, ectopic pregnancy rates vary according to the cause of infertility.

Case Report

A 35 year-old woman with a previous history of IVF treatment due to tubal factor, hospitalized for ectopic pregnancy to our clinic. In the past infertility investigations, patient's hormonal profile and her partner's semen analysis were in normal limits. Proximal complete obstruction in the right tuba and partial obstruction in the left tuba had been demostrated in laparoscopic examination before and with dye hydrotubation, partial left tubal obstruction had been opened. She had a cesearian section and gave a live birth after IVF treatment. She presented to our clinic for 45 days of amenorrhea. No pathologic finding was demostrated in gynecologic examination. Transvaginal ultrasonographic findings were endometrial thickness 13 mm/2 with no gestational sac in the cavity, however, left adnexal gestational sac with a 5 week 6 dayed-crown lump length (3.1 mm) fetal pole and cardiac activity was demonstrated (Figure 1). Left ovary was in normal follicular structure and in right ovary corpus luteum with a 13x14 mm diameter was seen. 9.5 mm peritoneal fluid in douglas pouch was seen. Laboratory evaluation showed ß-hCG: 16.024 mIU/ml at admission. During laparotomy, right tuba was fibrotic and corpus luteum as 25 mm diameter was seen macroscopicaly in the right ovary. Left ovary was in normal appearance and unruptured ectopic pregnancy focus as 40 mm diameter was located about 4 cm proximal to the fimbrial end of the left tuba (Figure 2). Methylen blue chromopertubation procedure was made during laparotomy and showed no passage from the proximal part of the right tuba. A fluent passage was seen till to the ectopic focus at the left tube same time. Bilateral salpingectomy was done during operation with patient's allowance. In the examination of the excised left tuba; ectopic pregnancy material with gestational sac and fetal pole was seen and histopathology confirmed the diagnosis. Postoperative follow-up was without any problem.

Discussion

In the diagnosis of ectopic pregnancy cases, the most important point is the high index of suspicion of being ectopic pregnancy. Only in the 50% of cases, classic triad of ectopic pregnancy; amenorrhea, abdominal pain and vaginal bleeding is seen as the presenting complaint.[1] In this case only amenorrhea was the presenting complaint. Not only, etiologic factors like previous PID, previous surgery and smoking have important role, however ectopic pregnancy rates have risen in recent years with the increase of ART cycles.[2] In one study, it is demonstrated that ectopic pregnancy rate is higher in patients applied IVF treatment due to tubal

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factor than the other causes of infertility (e.g. male factor, ovarian failure and other infertility factors). In the same study, number of transfered embryo and the treatment modality, especially ZIFT, GIFT, demostrated to be factors effective in formation of ectopic pregnancy.[3] While the risk of ectopic pregnancy is lower in case of the number of transfered embryo is two or lower.[3] In another study, it is proved that tubal microsurgery carries a lower risk than tubal macrosurgery.[4] In infertility cases with hydrosalpinx, laparoscopic salpingectomy before ART cycles, increase success rate of treatment.[5,6] The interesting part of this case evaluated is ectopic pregnancy occured in the contralateral part as a result of oocyte migration. This case can be explained by mature oocyte, originated from right ovary, migrated transperitoneally and came to the left tuba, where it was fertilized by the spermatozoa passed through the left tuba and caused ectopic pregnancy formation. In literature; only a few similar cases were published at the last two decades.[7,8,9,10,11] Rizos et al[8] showed that an ipsilateral fallopian tube ectopic pregnancy after laparoscopic partial salpingectomy which was occured with fertilized oocyte migration from the contralateral ovary. Also, similar cases with tubal ectopic pregnancies were reported at the partial salpingectomy side.[9,11] Evaluation of ectopic pregnancy cases; clinical findings, ultrasound examination and ß-hCG value are important in diagnosis and follow-up. Using methotrexate in medical therapy or laparoscopic conservative surgery for hemodynamically stable patients can be choosen. There is no superiority between both treatment modalities. In hemodynamically unstable patients, laparotomy is made immediately. While the recurrence rate after an ectopic gestation is increased 7 to 13 fold, this rate is 10% after salpingectomy and 15% after salpingotomy. In this case the reason of bilateral salpingectomy performed is prevention against recurrence of ectopic pregnancy in the obstructed tubal lumen by recanalization. In the last similar published case in 2005, ipsilateral ectopic pregnancy was observed after partial salpingectomy. As a result; patients with the diagnosis of ectopic pregnancy should be evaluated with associated risk factors and treated according to the defined protocols.

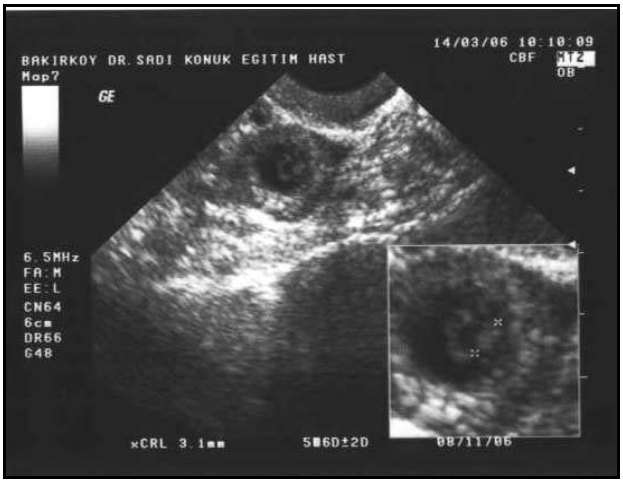

Figure 1. Left – tubal ectopic gestation with embriyo and yolk sac within gestational sac

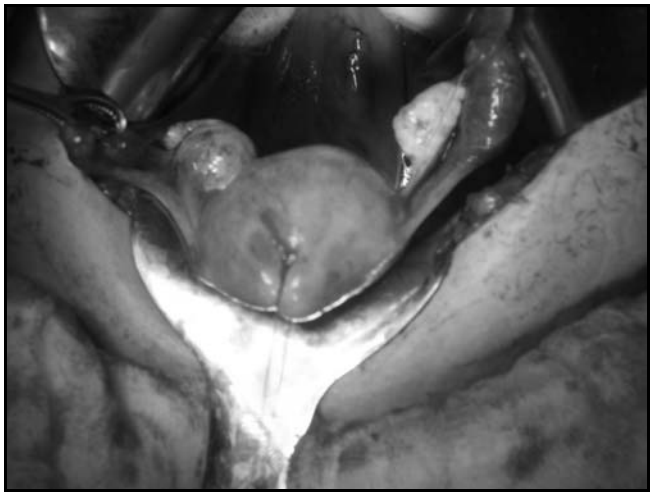

Figure 2. Corpus luteum on the right ovary , left-tubal ectopic pregnancy (laparatomic view)

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