

Pregnancy with Assisted Reproductive Techniques After Fertility Preserving Surgery in Borderline Serous Ovarian Tumour: Two Cases

Borderline Seröz Over Tümörlerinde Fertilite Koruyucu Cerrahi Sonrası Yardımcı Üreme Teknikleri ile Gebelik

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ABSTRACT Borderline epithelial tumors frequently are detected in women with desire of fertility who are at young or middle age group at reproductive period. For this reason, conservative surgical treatment is preferred in these patients since prognosis of the disease is good. In these patients, although spontaneous pregnancies are observed after conservative surgical treatment, frequently assisted reproductive treatment is required. In this case report, we aimed to demonstrate two pregnancy cases with assisted reproductive techniques following fertility preserving surgery and also to demonstrate their follow-up and outcomes.

Key Words: Ovarian neoplasms, pregnancy

ÖZET Borderline epitelyal over tümörleri sıklıkla fertilite beklentisi olan reproduktif dönemdeki genç ve orta yaşlardaki kadınları etkilemektedir. Bu durum hastalığın prognozunun iyi olmasından dolayı konservatif cerrahi tedavi seçeneğini ön plana çıkarmaktadır. Bu tür hastalarda konservatif cerrahi tedavi sonrasında spontan gebelikler oluşmasına rağmen sıklıkla yardımcı üreme tekniklerine ihtiyaç duyulmaktadır. Biz de bu olgu raporunda borderline seröz over tümöründe fertilite koruyucu cerrahi sonrası yardımcı üreme teknikleri ile oluşan iki gebelik olgumuzu ve bunların takip ve sonuçlarını sunmayı amaçladık.

Anahtar Kelimeler: Ovarian neoplazmlar, gebelik

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Borderline epithelial ovarian tumors are reported with an incidence of 10-20% among ovarian tumors.¹ Opposite to ovarian tumors, they usually affect women at reproductive age with desire for fertility. Borderline epithelial ovarian tumors are diagnosed usually at stage 1 according to FIGO classification.² For this reason, in latest studies, conservative surgical treatment is offered under consideration of desire of patients for fertility. Although spontaneous pregnancies are reported after conservative surgical treatment; frequently ovulation induction is required in these patients.³ In this case report, two cases in which conservative surgical treatment were performed for borderline serous ovarian tumor and which resulted in pregnancy with assisted reproductive techniques were demonstrated.

CASE 1

A 26 year old patient with gravidity 0, parity 0 admitted to our clinic with the complaint of pelvic pain and abdominal distension lasting for two weeks. The vital signs were detected as fever: 36.5°C, tension: 120/80 mmHg and pulse: 84/min and respiratory rate: 10/min. In abdominal examination and other systemic examinations, there was not any pathology. In pelvic examination, uterus was normal in texture and size, and there was right adnexial prominence. In transvaginal ultrasonography, uterus was normal in size and there was a 6x8 cm sized hypoechoic cystic mass with thin wall and papillary protrusions inside on right adnexial area. In complete blood count; leucocyte count was 9000/mm³, erythrocyte sedimentation rate was 10 mm/hour, hematocrit was 38% and CRP was 10 mg/l (0-10). CA-125 level and CEA levels were detected as 170 U/ml (<35) and 2.88 U/ml (<3.4) respectively. Intraoperatively, there were a 2 cm sized papillary body on left ovary and an approximately 8 cm sized cystic mass with papillary protrusions inside on right ovary. Since the result of frozen section pathology was reported as borderline serous papillary carcinoma, considering the fertility desire of patient, staging laparotomy, bilateral ovarian tumor excision, bilateral ovarian reconstruction, infracolic omentectomy, appendectomy, pelvic-paraaortic lymphadenectomy procedures were carried out. The pathological investigation result was reported as bilateral borderline serous papillary tumor and lymph nodes as reactive. Appendix and omentum biopsies were reported as normal. In abdominal washing cytology, tumoral cells were detected. The patient was evaluated as stage 1C according to FIGO classification. The patient was discharged on the postoperative 4th day and was planned to be seen in control 4 weeks later. No complication was detected on controls and since couple had desire for childbearing, was called for control 6 months later. There was not any pathology on control, and patient got pregnant with ovulation induction with clomifen citrate in our IVF center. The patient did not have any problem at antenatal con-

trols and gave birth to 3350 gram of healthy male baby at 39th gestational week with elective cesarean section. During cesarean section, second look procedure was carried out and since 2 cm sized cystic masses with papillary protrusions were detected on both ovaries and both were extirpated. Borderline serous papillary tumor was reported from excised materials. In abdominal exploration, there were not any extraovarian implants. The patient was discharged on the postoperative second day and there was not any problem on control 1 month later.

CASE 2

A 27 year old patient with gravidity 0, parity 0 has admitted to another center with the complaint of menstrual irregularity. Patient was administered oral contraceptive treatment for 2 years. Since patient could not conceive after this treatment for 2 years, she has admitted to another center. In her sonographic evaluation, it has been detected that she has a cystic mass with septa located on left adnexial area. The laboratory findings has been found as CA-125:104 U/ml, β HCG level: 0.8 IU/ml, CEA :0.7 ng/ml, AFP: 0.3 IU/ml. It was learnt that patient was offered laparoscopy but she had refused. On control, one year later, it was learnt that again laparoscopy was planned for patient and during operation a left ovary related cystic mass was detected. During operation, cystectomy has not been carried out, but biopsy samples have been taken. Since pathology result of patient was reported as borderline serous tumor and peritoneal washing cytology was positive, patient has admitted to our clinic. Staging laparotomy (bilateral ovarian tumor excision, bilateral ovarian reconstruction, infracolic omentectomy, appendectomy, pelvic-paraaortic lymphadenectomy) ovarian cyst excision, and ovarian reconstruction have been carried out. The pathology result has been reported as borderline serous tumor stage 1C. The patient admitted to our IVF center with infertility 15 months later. The patient was administered IVF-ICSI protocol due to male factor. Following this procedure, she conceived twin gestation, and she gave birth to two healthy baby weighing 2400 and

2800 grams respectively at 36th gestational week. During cesarean section, both ovaries were inspected normal.

DISCUSSION

In recent years, since patients with early stage borderline ovarian tumors have fertility desire and since prognosis is good, conservative surgical treatment is preferred. By this way, both operative mortality and morbidity decreases, prevention of reproductive organs is increased. In patients who were applied conservative surgery for borderline ovarian tumors, increased recurrence rates are detected when compared with those applied radical surgical treatment, but this recurrence do not affect surveillance of patients.⁴

In first patient, pregnancy was achieved by ovulation induction following surgery, whereas in second patient pregnancy was supplied by IVF-ICSI due to male factor. Although spontaneous pregnancies following surgery are reported, usually assisted reproductive techniques are required for these patients to conceive. Probably the reason for is thought to be the decreased ovarian reserve. There are few studies on long term reliability of ovulation induction in these patients. Patients should be informed about details of long term side effects of ovulation induction. As reported in the study of Donnez et al⁵ an early and a well done fertility sparing conservative surgery may provide no recurrence in tumor and will bring pregnancy. Unilateral salpingoophorectomy must be considered as the first choice of conservative treatment in most patients, because it seems to be associated with lower recurrence rates. In their study, all the patients conceived spontaneously, and the rate of pregnancy is 63.6%. In our first case we used COH with clomifen citrat and in the another case we used assisted reproductive technology with IVF-ICSI long protocol because of male factor. In the study of Camatte et al,⁶ they used IVF protocol for persistent infertility.

They reported that of 17 women with stage II or III borderline ovarian tumor treated with fertility - preserving surgery, only two women recurred and there were no deaths at a median follow-up of 60 months. The same group reported on pregnancy outcomes among their entire cohort of 44 women treated conservatively for borderline ovarian tumors. There were 17 pregnancies in 14 women. Fifteen were spontaneous, one patient was treated with clomifen citrate, and one woman conceived after in-vitro fertilization (IVF).

Unilateral cystectomy may have more chance of preserving a woman's fertility compared to adnexectomy because of the removal of less ovarian tissue. Its greatest danger is the risk of inadvertently leaving behind some malignant cells.⁶ In most of the borderline tumors including both of the ovaries, the recurrence rate is high. It was the same in our first case. Approximately one and a half year after the surgery, we found recurrence in the tumor. The standard procedure for these tumors is bilateral adnexectomy, hysterectomy and associated with often radiotherapy and chemotherapy as same as their invasive counterparts. However we made a conservative surgery. We tried to preserve the ovaries with extracting only the lesion and by making a reconstruction to the ovaries.

There is not any advantage of chemotherapy usage in early stage borderline ovarian tumors. It could not be demonstrated in studies that neoadjuvant chemotherapy has any benefit. According to many authors, if invasive implants are detected, it is recommended to use aggressive surgical debulking in combination with chemotherapy.⁷

As a result; conservative surgical treatment seems applicable in patients with early stage serous ovarian tumor and fertility desire. After surgical treatment, we think that in patients with fertility desire, liberal usage of assisted reproductive techniques seems more reasonable.

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