Advanced stage micropapillary serous borderline ovarian tumor in a postmenopausal woman: a case report

Postmenopozal bir kadında evre mikropapiller seröz borderline over tümörü: olgu sunumu

Tayfun Gungör¹, Metin Kaba¹, Eralp Başer¹, Hakan Yalçın¹, Hatice Bayramoğlu², Mustafa Beşli²
¹Department of Gynecologic Oncology, Zekai Tahir Burak Women’s Health Education and Research Hospital, Ankara, Turkey
²Department of Pathology, Zekai Tahir Burak Women’s Health Education and Research Hospital, Ankara, Turkey

Abstract

Serous borderline ovarian tumors (SBOT) generally occur in young women, present at early stages and are associated with an excellent prognosis. However, there are rare subtypes of SBOT which may exhibit a more aggressive course. In contrast with other types of SBOT, the micropapillary variant SBOT (SBOT-MP) tends to present at advanced stages. Herein, we present a rare case of a SBOT-MP that occurred in a 66-year-old woman, who had tumoral involvement on bilateral ovaries, sigmoid serosa and a positive peritoneal cytology. The currently recommended treatment options for these cases are also discussed.(J Turkish-German Gynecol Assoc 2012; 13: 208-11)

Key words: Borderline ovarian tumor, peritoneal implant, micropapillary, advanced stage, postmenopause

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Introduction

Serous tumors account for 60% of all epithelial ovarian tumors, and are classified into three groups: benign, borderline and malignant. Serous borderline ovarian tumors (SBOT) constitute 9-15% of all serous neoplasms. With respect to invasive ovarian cancer, borderline tumors generally occur in younger women at childbearing age. Fortunately, these tumors are generally diagnosed at early stages, and have a favorable prognosis (1).

However, there are subtypes of SBOTs that are associated with a more aggressive behavior and an unfavorable outcome. Herein, we report a case of a bilaterally located micropapillary variant of SBOT resembling an invasive ovarian malignancy at an advanced stage with serosal sigmoid implants and positive peritoneal cytology in a postmenopausal woman. The currently recommended treatment approaches for these tumors are also discussed.

Case Report

A 66-year-old woman who had been postmenopausal for 22 years applied to our institution with pelvic pain and abdominal distention that initially occurred four months before admission. Her past medical and family histories were unremarkable. A pelvic mass predominantly located in the right lower quadrant was palpated on pelvic examination. On transvaginal ultrasonography (TVUS), she was found to have bilateral cystic pelvic masses with peripheral solid areas, each measuring 10 cm in diameter. Pelvic computed tomography (CT) revealed bilateral heterogeneous pelvic masses with irregular surface contours and solid components. Circulating serum tumor markers were within the normal reference range (CA125: 22.2, CA19-9: 0.56, CA15-3: 8.7, AFP: 2.2, CEA: 1.7).

Exploratory laparotomy was performed. Minimal peritoneal fluid accumulation was observed, which was sampled for cytological analysis. Solid-cystic masses on both ovaries were
present, each measuring about 10 cm in size. There were multiple tumoral implants on the sigmoid colon serosa, the largest measuring 5 mm. Other peritoneal surfaces were macroscopically normal.

Bilateral salpingo-oophorectomy was performed initially, and the masses were sent for frozen section analysis. Both of the masses were reported to be serous ovarian tumors with at least borderline histology. Total abdominal hysterectomy, omentectomy, bilateral pelvic and paraaortic lymph node dissection and appendectomy were performed for staging purposes. Tumoral implants were excised from the sigmoid colon serosa and the defects were primarily repaired. The patient had an uneventful postoperative course and was discharged from the hospital on the third postoperative day.

On final pathological examination, a micropapillary variant of SBOT on both ovaries and peritoneal implants on sigmoid serosa were reported (Figure 1). The implants on the sigmoid serosa were non-invasive (Figure 1). The tumor had both endophytic and exophytic invasion patterns (Figure 2). Cytological washings were also positive for tumor cells (Figure 3). Pelvic and paraaortic lymph nodes, omentum and appendix were free of any tumoral involvement. After consultation with the medical

Figure 1. Micropapillary pattern of the tumor (left image) (H&E x200) and Non-invasive peritoneal implant on sigmoid serosa (right image) (H&Ex40)

Figure 2. Endophytic (left) and exophytic (right) growth pattern of the tumor (H&E x40)
A papillary pattern (H&E x400) is the most common histologic type (8). It is characterized as stage III-B disease. Positive peritoneal cytology rates increase as nearly 30 percent of women with SBOTs have extraovarian disease spread. Moreover, 6 to 27 percent of those with a frozen section diagnosis of serous borderline tumor will be upgraded to invasive cancer on final pathological examination (12). As previously mentioned, our case had multiple high risk factors for recurrence; thus, complete staging surgery was undertaken. Especially for postmenopausal patients with SBOT-MP, we recommend an extensive surgical intervention, as for invasive serous ovarian carcinomas. These cases should also have long-term follow-up visits, as there may be recurrences even 10 years after initial treatment (13).

Although considered ineffective by some authors, chemotherapy is commonly used in advanced stages of disease, especially with extraovarian implants, as done in our case (14). Well-designed future studies are needed to clarify the role of chemotherapy in the treatment of SBOT at advanced stages. In summary, we presented a case of bilateral SBOT-MP tumor with extraovarian spread in a postmenopausal patient. Complete staging procedures with optimal cytoreductive efforts are strongly recommended in these cases in order to achieve high cure rates and minimal disease related morbidity and mortality.

**Conflict of interest**

No conflict of interest was declared by the authors.
References

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