

MATURE CYSTIC TERATOMA WITH MALIGNANT DEGENERATION

(Received 21 September, 1993)

T. Bilgin, M.D.^{*} / C. Cengiz, M.D.^{*} / Ş. Tolunay, M.D.^{**} / H. Ozan, M.D.^{****}**

- ^{*} Professor, Department of Obstetrics and Gynecology, Faculty of Medicine, Uludağ University, Bursa Türkiye.
- ^{**} Associate Professor, Department of Pathology, Faculty of Medicine, Uludağ University, Bursa, Türkiye.
- ^{***} Assistant Professor, Department of Obstetrics and Gynecology, Faculty of Medicine, Uludağ University, Bursa, Türkiye.
- ^{****} Research Assistant, Department of Obstetrics and Gynecology, Faculty of Medicine, Uludağ University, Bursa, Türkiye.

SUMMARY

A fifty-one year old postmenopausal women with a palpable mass in the lower abdomen was admitted. At laparotomy, a left ovarian solid mass measuring 12x10 cm was discovered. Two nodules, about 1 cm in diameter were seen between the layers of broad ligaments. Although the frozen section was reported as benign cystic teratoma, final diagnosis was reported as squamous cell carcinoma arising in benign cystic teratoma with metastasis in the nodules. She was accepted as Stage IIB and treated with 6 courses of high dose of cisplatin and cyclophosphamide. Tumor was found at second-look laparotomy and a second-line chemotherapy was initiated.

Key Words: Ovarian cancer, Laparotomy, Teratoma

INTRODUCTION

Ovarian teratoma is a kind of germ cell tumor and the most frequent type is mature cystic teratoma. They make up 15% of all ovarian tumors and are mostly seen in second and third decades. Clinical signs are due to its size, compression of adjacent organs and complications such as rupture or torsion. Though mature teratomas rarely undergo malignant degeneration, once it occurs a life-threatening complication arises.

CASE REPORT

Fifty-one year old gravida 3, para 3 female patient, admitted to Uludağ University Medical Faculty, Department of Obstetrics and Gynecology with palpable mass in the lower abdomen and pelvis.

She was postmenopausal for 3 years. Following acute rheumatic fever with carditis in childhood, she had mitral commissurotomy for mitral stenosis in 1979 and mitral and aortic valve replacement for mitral and aortic regurgitation in 1992. There was IV⁰ / VI⁰ systolic murmur on aortic and mitral foci and she has been defined as compensated heart failure. She was on oral anticoagulants and digitalis. Serum glucose levels were within normal limits with

glibenclamide 10 mg/day. Perineum, vulva, vagina and cervix were atrophic at gynecological examination. Cervical smear was benign and intravenous pyelography showed compression on the bladder. Abdominopelvic ultrasonography revealed a regularly contoured mass of 12x10x10 cm in size with hyperechogenic foci inside, arising just adjacent to the anterior abdominal wall in addition to ascitis. Uterus and abdominal organs were normal, but the ovaries were unable to be visualized, separately.

A solid, gray-yellow mass, originating from the left ovary, 12x10 cm in size was discovered at laparotomy. Omentum was attached to this mass in a small area. Uterus, both fallopian tubes and the right ovary were normal. Two nodules, 1x1 cm in size and one in each side were observed between the layers of broad ligament and arouse the suspicion of metastasis. Peritoneal surface, omentum, liver, spleen, gallbladder, subdiaphragmatic area and other abdominal viscera were normal. Although the frozen section of the left ovary was reported as benign cystic teratoma, total abdominal hysterectomy, bilateral salpingoophorectomy, omentectomy and pelvic lymph node sampling with excision of the broad ligament nodules were carried out because of the high suspicion of malignancy.

Postoperative histological studies showed squamous cell carcinoma arising in benign cystic teratoma and metastasis in the excised nodules (Fig. 1). Lymph nodes and omentum were normal and the peritoneal cytology was negative. The patient was accepted as stage IIB. Following 6 courses of chemotherapy with 500 mg/m² cyclophosphamide and 100 mg/m² cisplatin, a second-look laparotomy was performed. Adhesions between sigmoid colon, urinary bladder and anterior abdominal wall were dissected and a 4x3x4 cm sized tumoral mass beneath these adhesions was excised completely. Tumoral masses 3x1x4 cm and 2x1x2 cm on the vaginal cuff were excised with minimal residual tumor. Three tumoral implantations on the posterior peritoneal surface were seen. Two lymph nodes at the aortic bifurcation and two lymph nodes near the inferior mesenteric artery were palpated. All these tumoral tissues were less than 1 cm in diameter. Frozen specimens revealed malignancy.

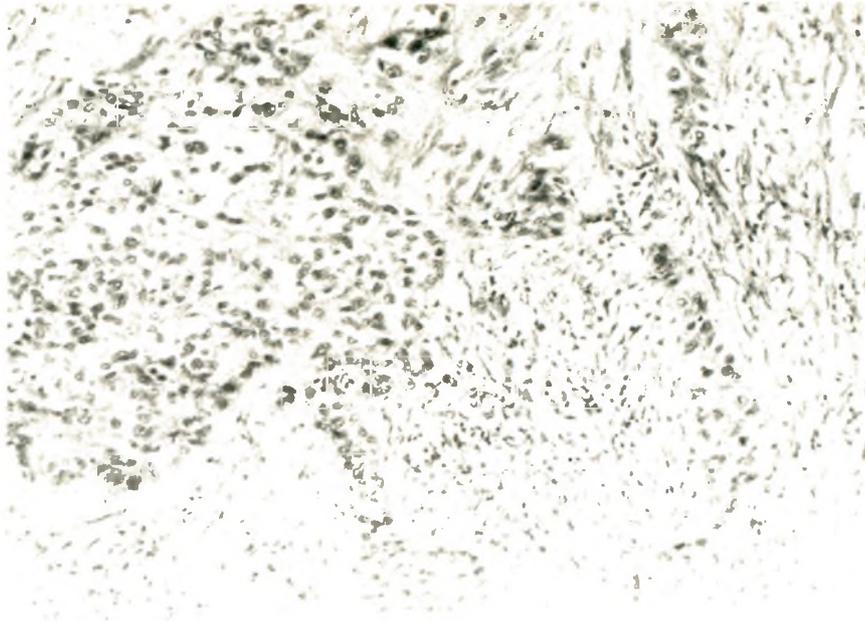


Fig. 1. Microscopic photograph of the tumor seen at the edge of the cyst. (Haemotoxylene eosine: 10x40x/0.65)

A second-line chemotherapy regimen, including bleomycin, cisplatinum, ifosfamide and mesna was started.

DISCUSSION

One to two percent of cystic teratomas undergo malignant transformation (1) and this mostly occurs in postmenopausal women. Though any component of the mature cystic teratoma can show malignant degeneration, it is the squamous cell carcinoma arising from epidermis in 80% of the cases (2).

It is advised to perform total abdominal hysterectomy and bilateral salpingoophorectomy with debulking and surgical staging in such cases. This case reminds us to do full surgical procedure for malignancy even the frozen section is reported as benign.

However, when the patient is young, conservative surgery might be indicated. It should be kept in mind that the specimen will not show any malignant foci, if the section crosses through the benign tissue. Hence, serial sections are necessary to exclude any malignant degeneration.

REFERENCES

1. Norris HJ, O'Connor DM. Pathology of malignant germ cell tumors of ovary. In: Coppleson M, ed. *Gynecologic Oncology: Fundamental principles and clinical practice*. Edinburgh: Churchill Livingstone, 1992:917-934.
2. Peterson WF. Malignant degeneration of benign cystic teratomas of the ovary: a collective review of the literature. *Obstet Gynecol Survey* 1957;12:793.