

Ovarian Squamous Cell Carcinoma Arising from Mature Cystic Teratoma: A case report

中國醫藥大學附設醫院 婦產部 陳怡燕 何銘 葉聯舜 洪耀欽 林武周 張維君*

Introduction

Malignant transformation of a mature cystic teratoma is rare, and the most common type is squamous cell carcinoma(SCC). The case reported is rare with incidence of malignant transformation about 1% to 2%. The preoperative diagnosis is difficult because the similar sonographic findings to mature teratoma and non-specific presentation. The prognosis is poor and there is no consensus in the literature regarding adjuvant treatment.

Case Report

A 52-year-old female, gravida 1, para 1, menopause 1 year ago, complained of lower abdominal pain for 2 months. She had neither diarrhea, recent body weight loss, nor lower urinary tract symptoms. Gynecologic sonography disclosed one left adnexal multilocular-solid cyst about 5.4*3.26/10.54*5.64cm in size without blood flow. Serum tumor markers including CA-125(12.7 U/ml), AFP(1.68 U/ml), and CEA(2.82 U/ml) were within normal limit. She received laparotomy, and there was one left ovarian cyst with similar gross pictures as a mature cystic teratoma such as sebaceous material and hair. What's bizarre is its greenish thick fluid content and the solid component with myometrial invasion and adherent to left pelvic side wall. An intraoperative frozen section analysis of the left ovary revealed squamous cell carcinoma arising from the dermoid cyst. She received staging operation (subtotal hysterectomy+ BSO+ BPLND+ PALNs+ infracolic omentectomy+ peritoneal biopsy+ascites cytology). Postoperative course was uneventful. Postoperative serum test showed slightly elevated SCC antigen(6.6 U/ml). The postoperative histology report revealed moderately differentiated, keratinizing, squamous cell carcinoma arising from dermoid cyst with right ovary metastasis, uterine invasion, and no lymphadenopathy; staging IIC clinically. She had finished six courses of adjuvant chemotherapy with EP regimen (Cisplatin 60mg/m² for 1 day and Etoposide 100mg/m² for 3 days). Local recurrence was further noted on abdominal CT and PET/CT after chemotherapy. She is now receiving palliative radiotherapy.



Figure 1



Figure 2

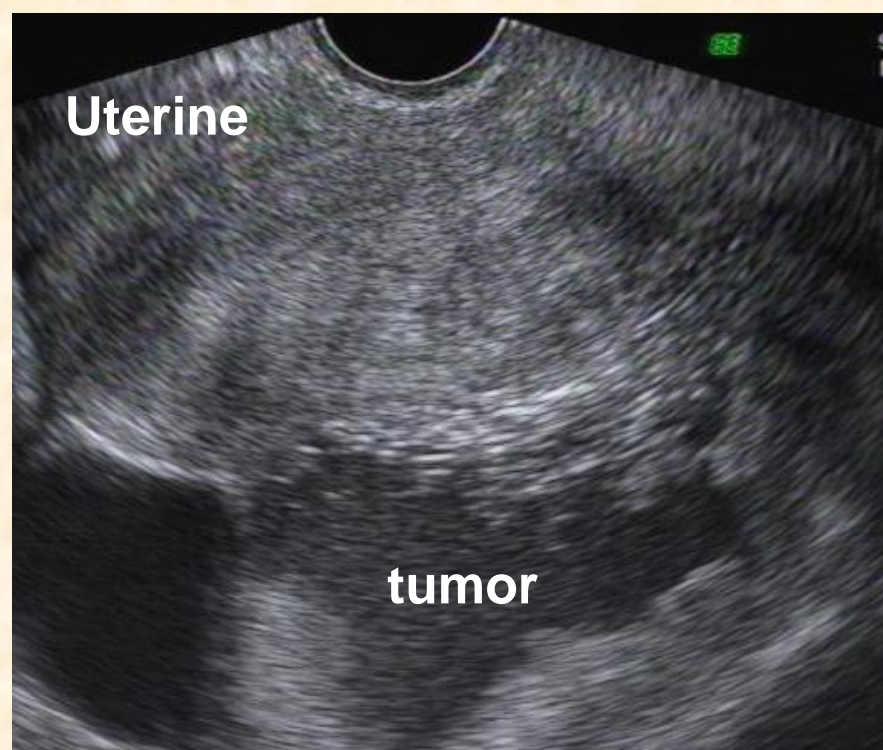


Figure 3



Figure 4

Figures

1. The gross picture of the tumor with malignant transformation is the same as mature cystic teratoma.
2. However, it behaved malignantly with myometrial invasion.
3. Sonogram demonstrated ill-defined border of posterior uterine wall suggesting tumor invasion.
4. PET/CT scan showed a hypermetabolic lesion in the left posterior pelvis, compatible with the local recurrent tumor.

Conclusions

There were already almost five hundred cases reported. Risk factor contributing to malignant transformation include patient age (average age 45~60 years), tumor size(>10cm), imaging characteristics(lower resistance of blood flow), and serum tumor markers(SCC antigen). This patient we reported is consistent with the age, the tumor size and serum tumor marker, but her sonographic findings demonstrated no blood flow. With regard of the adnexal tumor suspicious of mature cystic teratoma, do not overlook the risk factors of malignant transformation. Due to the rarity of the malignant transformation of a mature cystic teratoma, there was few series discussing about its management. Since optimal cytoreduction has proved significant improvement in survival, tumor excision with surgical staging should be performed with the exception that unilateral salpingo-oophorectomy with staging may be another choice for patients with intact stage IA disease and fertility considerations. As for the adjuvant treatment, there is no consensus regarding the chemotherapy or radiotherapy. Most patients were treated similar to cervical SCC with platinum-based chemotherapy with or without pelvic radiation. We chose EP regimen as the adjuvant therapy because the tumor arose from mature cystic teratoma belonging to one kind of germ cell tumor. However, the patient's response to EP regimen is obviously poor since local recurrent tumor developed soon.