

Case Report

Sertoliform Endometrioid Carcinoma of Ovary Presenting as Abdominal Wall Abscess

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ABSTRACT

Sertoliform endometrioid carcinoma (SEC) is a rare epithelial ovarian cancer which may be mistaken for sex cord tumour on microscopy. Immunohistochemistry and extensive sampling of tumour to look for areas of conventional endometrioid carcinoma are important to confirm the diagnosis of SEC. We report a case of SEC of ovary in a postmenopausal lady who presented to us with abdominal wall abscess in epigastric region.

KEYWORDS: Abdominal wall abscess, sertoliform endometrioid carcinoma, sertoli-leydig cell tumors

INTRODUCTION

Sertoliform endometrioid carcinoma (SEC) is a rare variant of endometrioid ovarian carcinoma which resembles Sertoli and Sertoli-Leydig cell tumors (SLTs) on histology.^[1] This similarity with sex-cord tumors may lead to diagnostic pitfalls.^[2] SEC is usually a well-differentiated, low-grade tumor and has a good prognosis when confined to the ovary.^[3] We report a case of SEC of the ovary in a postmenopausal female who presented with abdominal wall abscess in the epigastric region. This was a very unusual presentation of this rare condition.

CASE REPORT

A 65-year-old postmenopausal female patient presented to our hospital with the complaints of pain in the epigastric region. She was examined by the general surgery team and was diagnosed to have an abdominal wall abscess in the epigastric region [Figure 1] and a mass in the lower abdomen. After draining the abscess, the patient was referred to gynecology department.

She had no other complaints and had attained menopause 18 years back. She was multiparous and had no signs of virilization. Abdomen and pelvic examination revealed a 15 cm × 14 cm right ovarian tumor. Her CA-125 was slightly elevated (67 U/mL), and carcinoembryonic antigen was within the normal limits. Contrast-enhanced computed tomography of the abdomen revealed a predominantly solid right ovarian tumor with some cystic areas. A small

soft-tissue density and the necrotic nodule were also noted on the liver surface suggestive of a metastatic deposit.

A provisional diagnosis of carcinoma ovary was made, and the patient underwent staging laparotomy. Intraoperatively, there was minimal ascites, and the ovarian tumor was mobile with no evidence of capsular breach or surface deposits. Examination of the upper abdomen revealed a 2 cm deposit on the liver surface which was adherent to the stomach and anterior abdominal wall in the region of the epigastric abscess. This necrotic deposit was removed completely [Figure 2]. There was no other deposit in the abdominal cavity. Optimal debulking surgery was done without any residual disease. The wall of abscess (parietal wall tissue) was also resected and sent for histopathological examination.

An ovarian tumor was grayish-white and had multiple bosselations. Cut section revealed a predominantly solid tumor with homogenous lobulations separated by septation with focal areas of calcification [Figure 3]. On histopathological examination, the ovarian tumor showed nests, sheets, and cord-like areas suggestive of sertoli cell tumor [Figure 4]. There were simple

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How to cite this article: Subbaiah M, Dorairajan G, Badhe BA, Stephen NS. Sertoliform endometrioid carcinoma of ovary presenting as abdominal wall abscess. J Mid-life Health 2018;9:222-4.

Access this article online

Quick Response Code:



Website: www.jmidlifehealth.org

DOI: 10.4103/jmh.JMH_47_18

tubules lined by tall columnar epithelium with low-grade nuclei in a fibrous stroma. No areas of endometrioid adenocarcinoma were seen. Immunohistochemistry showed that cytokeratin (CK), estrogen receptor, and epithelial membrane antigen (EMA) were positive in the tumor cells. However, inhibin and calretinin were negative. With these findings, a diagnosis of SEC of the ovary was made. It was a well-differentiated tumor and omentum, parietal wall were found to be free of tumour. Uterus, fallopian tubes, and the other ovary were also free of tumor. However, given the necrotic deposit on the liver surface, it was decided to give patient adjuvant chemotherapy (six cycles carboplatin and paclitaxel). The postoperative course of the patient was uneventful, and the patient is currently on follow-up with no evidence of recurrence.

DISCUSSION

SEC of ovary was described nearly three decades back by Young *et al.* and Roth *et al.*^[4,5] Subsequently, SEC arising from uterus has also been reported.^[6] Similarity



Figure 1: Abdominal wall abscess after drainage of pus



Figure 3: Cut section of ovarian tumor with predominantly solid contents

of SEC to sex cord tumor may result in misdiagnosis. Eight out of 13 cases of SEC were initially diagnosed with sex-cord tumors in the case series described by Young *et al.*^[4]

SEC is usually seen in elderly patients whereas SLTs tend to occur in younger patients. Further, nearly half of the patients with SLTs have endocrine symptoms like virilization.^[2] Such virilizing symptoms are not commonly seen with SEC, but nevertheless have been reported.^[7] On gross appearance, SEC is predominantly solid unlike other epithelial ovarian cancers and may resemble SLTs. In our patient also the tumor was predominantly solid with some cystic areas.

Microscopically, SEC is found to have anastomosing cords, trabeculae, nests or tubules lined by pseudostratified columnar epithelium with elongated nuclei resembling SLTs. According to Misir and Sur,

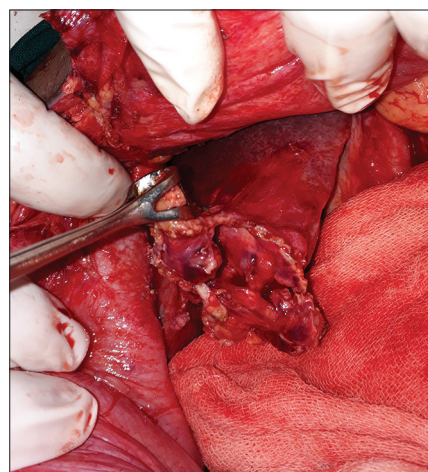


Figure 2: Necrotic tumor deposit on liver surface

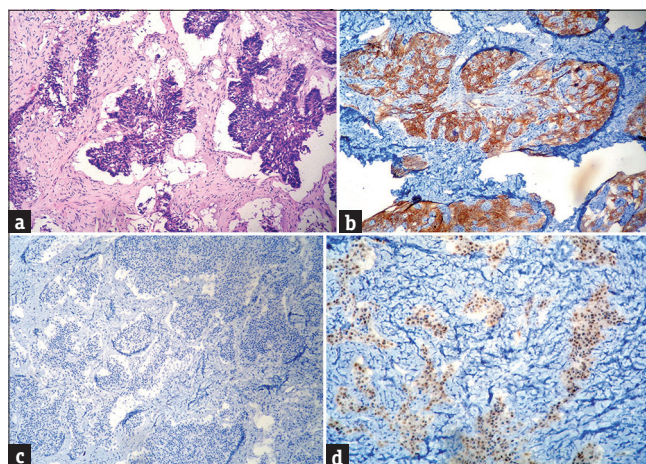


Figure 4: (a) Sertoliform endometrioid adenocarcinoma showing tumor cells in nests with nuclear stratification reminiscent of a sertoli-leydig cell tumor ($\times 10$). (b) Tumor cells showing diffuse Pan cytokeratin positivity. (c) Tumor cells negative for inhibin. (d) Tumor cells showing estrogen receptor positivity (Nuclear)

the presence of following two histologic features supports a diagnosis of SEC: “(1) the presence of areas with the usual pattern of endometrioid carcinoma; and (2) the presence of mucin at the apical borders of the tumor cells.”^[2] Other histologic features which support a diagnosis of SEC include presence of areas of squamous metaplasia, endometriosis, well-developed cilia, and pseudo stratified epithelium. Although areas of conventional endometrioid adenocarcinoma are generally present in SEC, there are some cases of SEC where the whole tumor consisted of sex-cord-like areas.^[1,7] Further, cytoplasmic mucin may also be absent in some cases of SEC.^[8]

Immunohistochemistry is very helpful in differentiating between SEC and SLTs. CK and EMA are typically expressed by SEC unlike SLTs.^[2] Very rarely; SLTs may express CK or EMA.^[9] Inhibin is expressed by almost all SLTs unlike endometrioid ovarian cancers which do not express this marker. The staining pattern of calretinin is similar to that of inhibin. Other markers such as estrogen and progesterone receptor have variable immune staining and not considered very useful in differentiating SEC from SLTs. In our patient, extensive sampling of the tumor did not reveal areas of conventional endometrioid adenocarcinoma. However, immunohistochemistry findings which showed EMA positivity and inhibin, calretinin negativity led to the diagnosis of SEC in our patient.

Treatment of SEC is like any other epithelial ovarian cancer which includes debulking surgery and chemotherapy if indicated.

It is very unusual for intraabdominal malignancies to present as abdominal wall abscess.^[10] In our patient, the reason for abdominal wall abscess in epigastric region was the tumor deposit on liver surface. Evaluation of this abscess resulted in diagnosis of ovarian tumor in our patient.

To conclude, SEC is a rare ovarian tumor which may be misdiagnosed as sex cord tumor. Extensive sampling of the specimen should be done to look for foci of conventional endometrioid carcinoma.

Immunohistochemistry is confirmatory in differentiating this tumor from sex-cord tumors.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

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