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Case Report

Serous carcinoma cervix: a rare and aggressive carcinoma mimicking ovarian malignancy

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ABSTRACT

Cervical cancers are the most common gynaecological cancers affecting women in India. Only rarely it is seen that cervical cancers metastasize to the ovaries. Serous carcinoma of cervix is a rare histological variant of adenocarcinoma of cervix, which is an aggressive tumour which usually presents in advanced stages and with metastasis to local and distant organs. Its abnormal and metastatic presentation disguising as ovarian malignancy often deceits the clinical and surgical decisions. Here we reported a rare presentation of primary endocervical cancer masquerading as ovarian carcinoma, which was treated with staging laparotomy followed by chemotherapy and patient had a good response with resolution of tumour masses.

Keywords: Cervical cancer, Metastasis, Serous carcinoma, Adenocarcinoma

INTRODUCTION

Serous carcinoma of endocervix previously thought to be separate subtype of adenocarcinoma of the cervix, is now recognized to be a variant of adenocarcinoma.[1] It is a rare variant with only a handful of cases reported worldwide. It is recognized to be a very aggressive tumour and usually presents in advanced stages. Often, patients with adenocarcinoma of the cervix, present with abnormal vaginal bleeding- postmenopausal/post-coital bleeding, foul smelling discharge, and/or detected on papanicolaou smears, rarely they may present with abdominopelvic mass emulating ovarian cancers.[2] There is limited literature regarding such cases and their management due to the rarity of the disease.[1,3] Its abnormal and metastatic presentation disguised as ovarian malignancy often deceits the clinical and surgical decisions.

CASE REPORT

A 57-year-old female, para 2 living 2 with previous 2 vaginal deliveries and tubectomized with menopause at the age of 50 years. She presented with a history of one episode of post-menopausal bleeding 3 years back and complained of reduced appetite for 2 weeks and a history of watery discharge per vagina for 4 days. She had a known case of hypertension and diabetes mellitus type II on medication with a BMI of 27 kg/m^2. On examination, vital signs were normal and other systemic examinations were unremarkable. She had no history of cervical cancer screening. On pelvic examination, the cervix was healthy. Physical examination was otherwise normal.

Laboratory investigations revealed CA (cancer antigen) 125-595.2 IU/ml. On magnetic resonance imaging (plain and contrast), a well-defined complex solid cystic lesion arising from right ovary, measuring 4.6×5.8×6.4 cm with peripheral enhancement on contrast imaging, with no signs of infiltration to surrounding structures. Multiple lymph nodes were noted in the internal and external iliac region. The left ovary was normal. 20×17 mm polyp was found arising from the cervix (Figure 1).

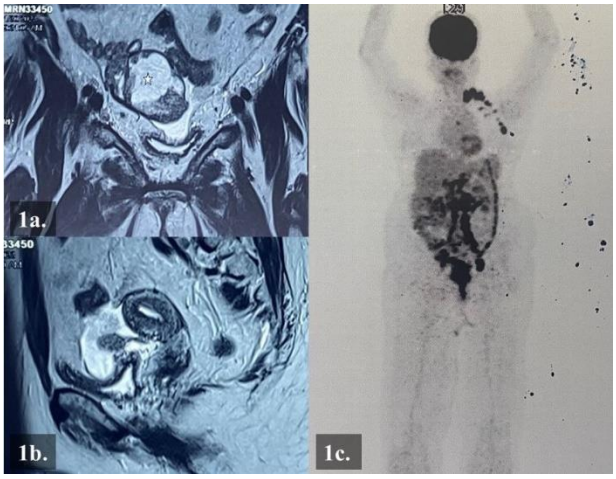

Figure 1: Radiological images; (a) coronal section showing right ovarian mass (star mark); (b) saggital section showing uterus and right ovarian mass; and (c) PET-CT showing possible metastatic deposits in para-aortic and supraclavicular nodes.

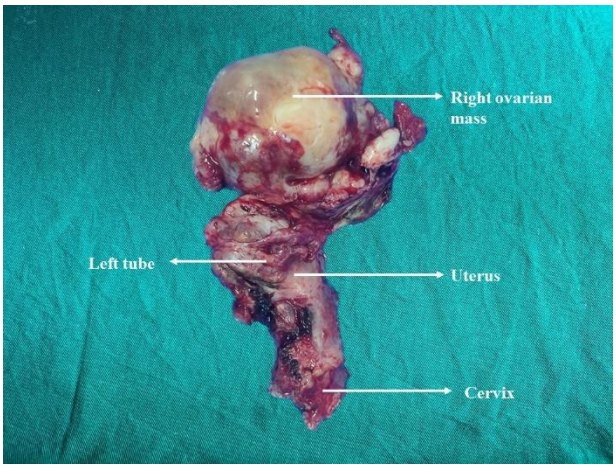

Figure 2: Gross specimen.

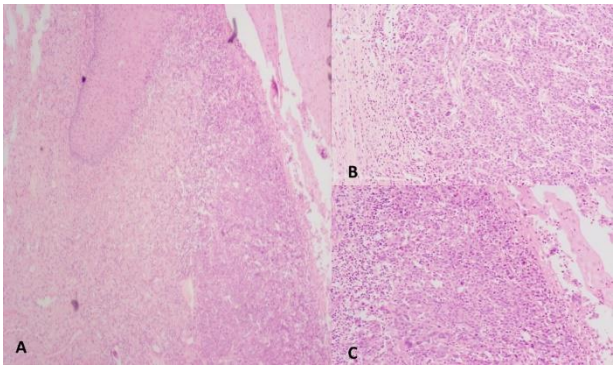

Figure 3: (a) Histopathology showing stratified squamous epithelial lining of ectocervix with underlying stroma showing a tumour; (b and c) the tumour cells are arranged in papillae and nests; these cells have moderate eosinophilic cytoplasm and vesicular pleomorphic nuclei, few with prominent nucleoli

With an initial diagnosis of ovarian malignancy, after obtaining informed consent from the patient she underwent staging laparotomy with type 2 modified radical hysterectomy with bilateral salpingo-oophorectomy. Intraoperatively, the omentum was adhered to the anterior abdominal wall. The bladder was adherent to the lower uterine segment and nodular deposits were noted over the bladder wall and bowel. The uterus, left ovary and bilateral tubes were normal. A right ovarian solid cystic lesion of 6x6 cm adherent to the omentum was noted. Bilateral pelvic lymph nodes were enlarged (Figure 2).

Histopathology revealed serous carcinoma of the endocervix with serous intraepithelial neoplasm in the adjacent endocervix. Myometrium, uterine serosa, bilateral ovaries, and rectum showed metastatic serous carcinoma (Figure 3).

Immunohistochemistry was negative for p53, p63 and p40. Post-operative positron emission tomography (PET) scan revealed supraclavicular and axillary lymph nodes involvement. The patient received 6 cycles of combination chemotherapy with carboplatin and paclitaxel and tolerated it well without any major side effects. Post chemotherapy the CA 125 was 18 IU/ml with repeat PET scan showing resolution of the tumor masses.

DISCUSSION

Cervical cancers make up the highest gynaecological malignancy load in developing countries, like in India. Although there is a decreasing trend with various screening programmes and protocols for cervical cancer, patients often present in advanced stages. The most common variant is squamous carcinoma, with other variants being adenocarcinoma and adenosquamous carcinoma.[4]

Adenocarcinoma accounts for 10-20% of all the cervical cancers, where the endocervical subtype is the most common. Serous carcinoma of the endocervix previously thought to be a separate subtype of adenocarcinoma of the cervix, is now recognized to be a variant of adenocarcinoma.[1] It is a rare variant with only a handful of cases reported worldwide. Serous carcinoma of the endocervix is known to have a bimodal age of presentation, while our patient was aged 57 years. They commonly present with bleeding or discharge per vaginum, like other cervical cancers do.[3,5] They may be detected on screening with pap smear or may show exophytic, ulcerative or polypoidal masses as described by Khan et al.[6] Our patient presented with history of postmenopausal bleeding and watery discharge per vaginum.

The scarcity of data may pose a dilemma in optimal management of these cases. Although, treatment modalities like surgical removal, neoadjuvant or post-surgical chemotherapy with carboplatin and paclitaxel

have shown good results.[1,5] Few other studies have shown a response to radiotherapy as well, which can be considered primary or adjuvant to surgery.[6]

It is histologically identical to its counterpart in the endometrium or ovary. Microscopically, composed of papillae or branching pattern, gaping glands lined by cells with hyperchromatic and pleomorphic nuclei with more than 10 mitotic figures and a scalloped configuration, with occasional psammoma bodies.[3,7] In our case histopathology showed stratified squamous epithelial lining of ectocervix with underlying stroma showing a tumour. The tumour cells are arranged in papillae and nests. These cells have moderate eosinophilic cytoplasm and vesicular pleomorphic nuclei, few with prominent nucleoli (Figure 3). Immunohistochemistry is used for differentiation of these tumours, previous reports have shown positivity for p53, p16 and CA 125.[1,3,6] These being rare variants with very less literature available worldwide, very little is known about their immunophenotyping.[8] Our case was negative for p53, p63 and p40, while CA 125 were raised.

Patients often respond well to adjuvant chemoradiotherapy. Kitade et al reported 4/5 cases with radical hysterectomy who were free of relapse for between 56 and 210 months, while another case treated with combination chemotherapy was disease-free for 26 months.[1] Patient reported here showed complete response to chemotherapy with carboplatin and paclitaxel.

CONCLUSION

Serous carcinoma of cervix, a rare subtype of adenocarcinoma cervix, usually presents as an aggressive tumour with or without metastasis to surrounding organs. It may even mimic an ovarian malignancy and pose a clinical dilemma. Proper evaluation and timely surgical intervention supplemented with chemoradiotherapy comprise adequate management of these masses.

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