

Clear Cell Carcinoma of Cervix – A Rare Case Report

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ABSTRACT

Clear cell carcinoma of cervix is a rare tumor, accounting for about 4% of cases of cervical adenocarcinoma. It commonly occurs in young women whose mothers had been exposed to diethylstilbestrol (DES). We are reporting a case of clear cell carcinoma of cervix in a 58 year old postmenopausal woman with no history of intrauterine exposure of DES.

Keywords: Cervix, Clear Cell Carcinoma, DES, Postmenopausal

Introduction

Cervical carcinoma is the most common malignancy in Indian women and fifth most common cause of cancer related death. While squamous cell carcinomas form the majority of these tumours, adenocarcinomas constitute only 15% of cervical carcinomas.^[1] Clear cell carcinoma of cervix is a rare tumor, accounting for about 4% of cases of cervical adenocarcinoma. It commonly occurs in young women whose mothers had been exposed to diethylstilbestrol (DES).^[2]

Case Report

Case of a 58 year old postmenopausal woman (P₃,L₃) complaints of intermittent left lower abdominal pain for two months associated with loss of appetite and loss of weight. Clinical examination was unremarkable and the investigations done were as follows. Pap smear was negative for dysplasia in epithelial margins. Colposcopy showed transformation zone type III and posterior lip of cervix did not take up the lugol iodine. Ultrasonography shows endometrial fluid collection. MRI of the abdomen and pelvis showed heterogeneous mass in the endometrium in the left lower uterine segment (Figure 1 and Figure 2).

Discussion

Adenocarcinomas of cervix are histologically categorized into

- Endocervical adenocarcinoma
- Mucinous carcinoma
- Villoglandular carcinoma
- Endometrioid carcinoma
- Clear cell carcinoma
- Serous carcinoma

- Mesonephric carcinoma^[3]

Clear cell carcinoma of cervix, formerly called as mesonephric carcinoma, is a rare tumour accounting for about 4% of cases of cervical adenocarcinoma. Primary clear cell carcinoma, which is of Mullerian origin, is a rare entity occurring in women who have been exposed to diethylstilbestrol (DES) in utero and occurs at a younger age group of 15-25 years. However, sporadic cases, which occurs in women without in utero exposure to DES, occurs at an older age of 50-85 years.^[4]

The most common presenting symptom is vaginal bleeding. They can also present as misdiagnosed precocious puberty or anovulatory bleeding in a child or prolonged vaginal bleeding in young women.^[5] Grossly clear cell carcinomas are endophytic and they may often extend to the uterine corpus and infiltration of the cervix occurs more frequently than with other cervical carcinomas. It can also present as an exophytic lesion.

Histology is the mainstay of diagnosis and is characterized by a mixture of clear and hobnail cells (Figures 3,4 and 5) with clear or eosinophilic cytoplasm and enlarged irregular nuclei (Figure 6) arranged in solid sheets and nests or tubulocystic and to some extent papillary pattern.^[6] The tubulocystic pattern has cells with nuclei protruding into the lumina. Differential diagnosis for clear cell carcinoma of cervix includes microglandular hyperplasia, Arias-Stella reaction, mesonephric hyperplasia, squamous cell carcinoma, metastatic renal cell carcinoma and the rare alveolar soft part sarcoma of the cervix. Cytological atypia distinguishes clear cell carcinoma from microglandular hyperplasia and mesonephric hyperplasia. History of pregnancy is in favour of Arias-Stella reaction and they lack the infiltrative pattern.

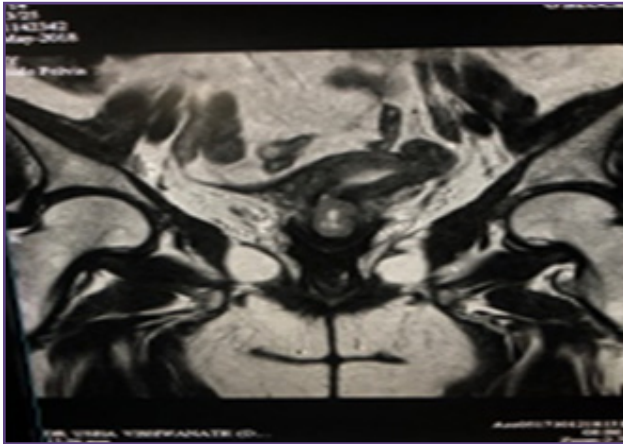


Fig. 1: MRI image showing heterogenous mass in the endometrium.



Fig. 2: MRI image showing the mass extending into the lower uterine segment.

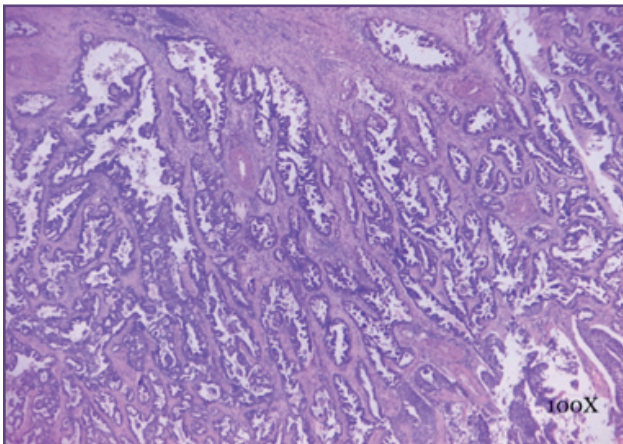


Fig. 3: H & E stain showing infiltrating glands, 100x magnification.

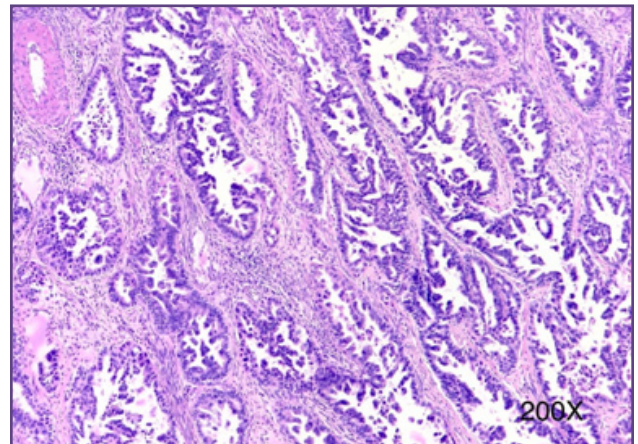


Fig. 4: H & E stain showing infiltrating glands with hobnailing, 200x magnification.

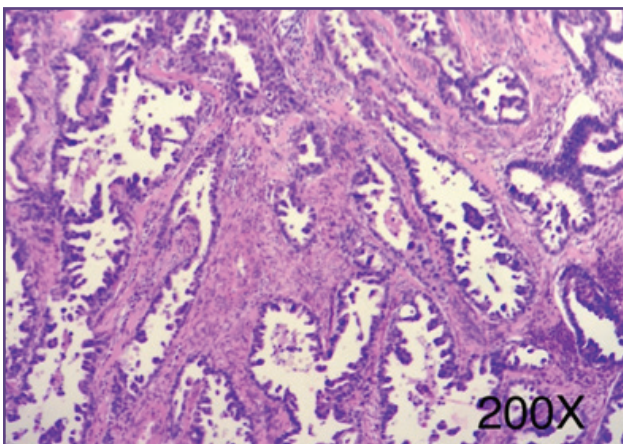


Fig. 5: H & E stain showing hobnailing of cells, 200x magnification.

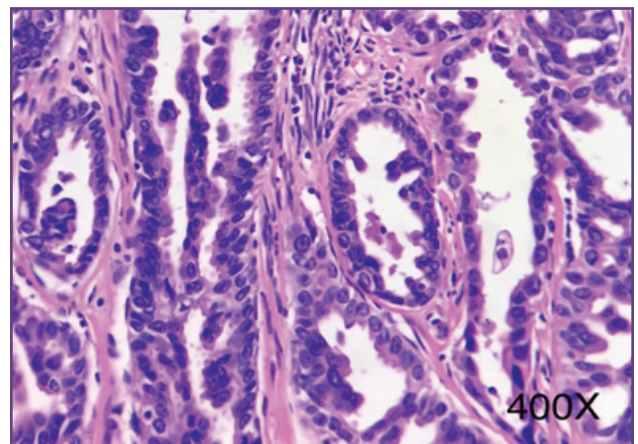


Fig. 6: H & E stain showing hobnail cells with nuclear atypia, 400x magnification.

Most tumors are diagnosed at an early stage of stage I or stage II and the prognosis is relatively good similar to that of the endocervical adenocarcinoma but a little less than the squamous cell carcinoma.^[7]

Conclusion

Post Diethylstilbestrol era, primary clear cell carcinoma of uterine cervix occurring sporadically is rare and we have described a young patient diagnosed with clear cell carcinoma of the uterine cervix and have conducted a review of literature.

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Competing Interests

None declared

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