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Case report

PRIMARY MALIGNANT MELANOMA OF UTERINE CERVIX: A RARE OCCURRENCE

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ABSTRACT

Primary malignant melanoma of uterine cervix is a rare and aggressive neoplasm. In women, genital tract is the site of approximately 3%-7%of malignant melanomas. Majority of these occur in vulva or vagina, but cervix is a rare site. Cervical melanoma is reported in the age range of 19 to 83 years with peak incidence between 60 to 70years. Malignant melanoma presents with vaginal bleeding or discharge and appears as exophytic, polypoid, pigmented or colorless cervical mass. Diagnosis is by histopathology which should be confirmed by immunohistochemical staining with S100 protein and HMB45.

Primary cervical melanoma must be differentiated from secondary metastasis of melanoma to the cervix from other sites in the body. In general, prognosis of primary cervical melanoma is poor, because it is diagnosed at an advanced stage. No consensus has been established regarding treatment of primary malignant melanoma of cervix, because of its rarity. Cervical melanoma is incurable in totality with the currently available therapies and hence it has to be diagnosed early.

A 60 year old woman presented with white discharge per vagina. On examination, there was a bluish black colored mass arising from the anterior lip of cervix. Following histopathology and other investigations, a diagnosis of primary malignant melanoma of uterine cervix was made. The case is reported for its rarity.

Keywords: Malignant melanoma, primary, uterine cervix

INTRODUCTION

In 1959, Cid reported the presence of melanocytes in the cervical epithelium of 3.5% of women[1] .Since then, in the literature, about 78 cases of primary malignant melanoma of the uterine cervix have been reported [2]. Primary malignant melanoma of the cervix is a rare neoplasm. It constitutes less than 2% of cases of malignant melanoma of the genital tract[3]. The diagnosis may be missed or delayed as it often presents in an amelanotic form[4]. Majority of the patients are in advanced stage of the disease on presentation and respond poorly to therapy[4]. Diagnosis is by histopathology and immunohistochemistry and by exclusion of primary melanoma at other sites. We report for its rarity, a case of a 60 year old female with primary malignant melanoma of the uterine cervix and describe its clinical and histological features.

CASE REPORT

A 60 year old post menopausal woman presented to the gynaecology department with a history of white discharge per vagina since 2 months.

On per speculum examination a 4*5centimeter bluish black colored mass was seen arising from the anterior lip of the cervix. The clinical diagnosis was endometriosis or endometrial polyp.

A punch biopsy of the cervix was done and the specimen was submitted for histopathological examination which revealed a diffusely infiltrative malignant neoplasm composed of highly pleomorphic, round, polygonal to spindle shaped cells with atypical large irregular nuclei and prominent nucleoli. Intra and extra cellular fine brown granules of pigment which were Masson Fontana positive was present. Junctional activity was seen in the epithelium. Immunohistochemical staining for HMB 45 was positive. The histopathological diagnosis was pigmented malignant melanoma of the cervix. No melanotic lesions were found in the skin, eye and other mucosal sites. Abdominal ultra sonography and chest radiograph were normal. Considering the absence of malignant melanoma at any other site and presence of Junctional activity, the diagnosis was given as primary malignant melanoma of uterine cervix. The patient was referred to the regional cancer institute for further management.

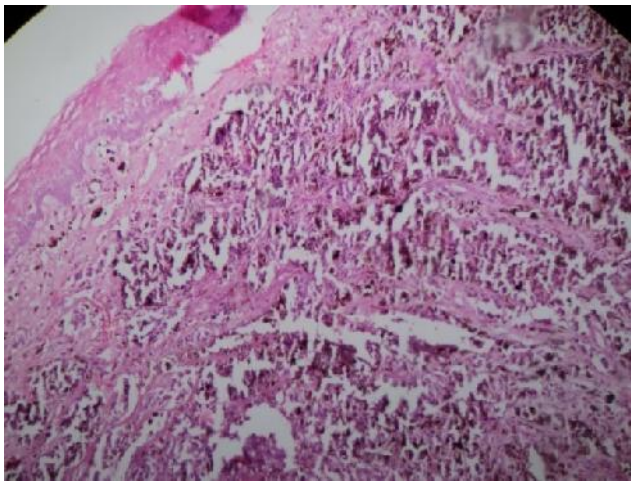

Fig.1: Stratified squamous epithelium of cervix with pigmented cells beneath the epithelium (10X)

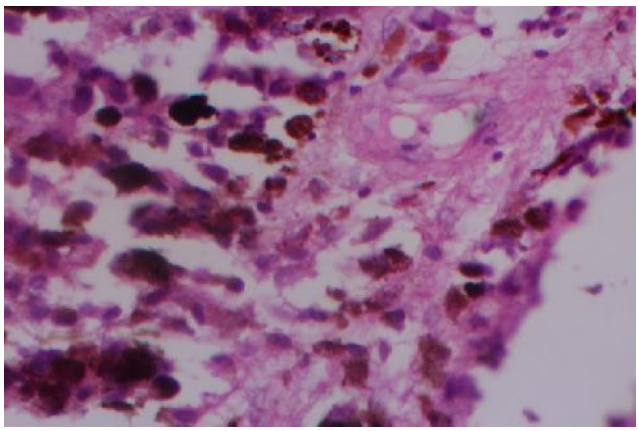

Fig.2: Intracellular fine granules of brown pigment (40X).

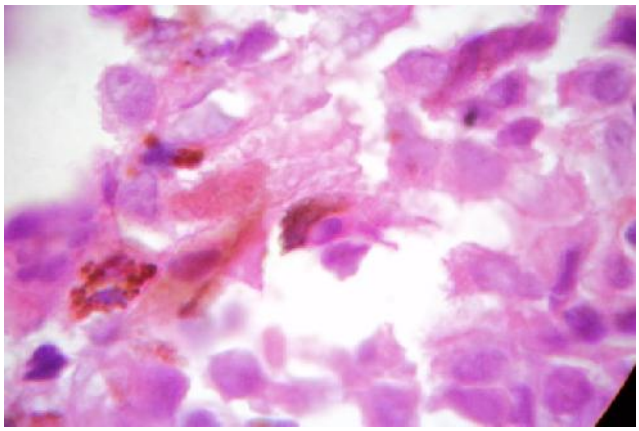

Fig.3: Pleomorphic cells with prominent eosinophilic nucleolus (100X).

DISCUSSION

Malignant melanomas are generally found in areas of skin exposed to the sun but may also present in nonexposed sites, such as genital tract and esophagus, among other sites' [3]. Approximately, 3-7% of malignant melanomas in women develop within genital tract.[6] Majority of them occur in vulva and vagina. Primary cervical melanoma is a rare entity.

Cervical melanoma arises from melanocytes in the cervix. The complete spectrum of melanocytic lesions, from benign lentigenes to blue nevi to melanoma can be seen in the cervical epithelium [3, 4].

Primary malignant melanoma of cervix is very rare[4]. A cervical melanoma may be either melanotic or amelanotic .Diagnosis of amelanotic melanoma may be missed due to the

absence of pigment and thereby needs caution. The present case exhibited classic features of melanotic melanoma and hence posed no diagnostic dilemma.

Patients with malignant melanoma of the cervix may range between 19 to 83 years, although the majority of them occur between 60 to 70 years.[5, 6] In most cases, vaginal bleeding or discharge is the usual presenting complaint.[4] Some patients may remain asymptomatic. Physical examination usually reveals a polypoidal exophytic mass which may be grey, brown, black, blue or red in color or it may be colorless in amelanotic melanoma ,which constitute up to 55% of cases in the cervix.[7] Recently the morphological features of primary cervical malignant melanoma in pap smear have been reported as, bizarre and abnormal cells containing pigment, raising the hope for an early diagnosis. [4]

Histologically, malignant melanoma in the uterine cervix is similar to malignant melanoma at other sites and is composed of cells with varying degree of pleomorphism and prominent eosinophilic nucleoli. In the melanocytic type, dark brown intracellular pigments which stain positive with Masson's Fontana stain are seen.

In the absence of pigment, the differential diagnosis includes anaplastic carcinoma, poorly differentiated squamous cell carcinoma, adenocarcinoma, rhabdomyosarcoma, leiomyosarcoma, stromal sarcoma and high grade lymphoma. Melanoma cells are positive for S100 protein (more sensitive) and HMB45 (more specific).[8] They also stain positively with Melan A, Vimentin, Tyrosinase and MITF (Microphthalmic Transcription Factor). They are usually negative for epithelial markers Cytokeratin and EMA and also Desmin. Primary melanoma of cervix must be differentiated from metastatic melanoma from other sites of the body including skin and eye [6]. Norris and Taylor have suggested the following criteria to diagnose primary malignant melanoma of the cervix' (a) presence of melanin in the normal cervical epithelium (b) absence of melanoma in another site of the body (c) presence of junctional activity in the cervical epithelium near the lesion (d) if metastasis is found, it should be according to the cervical carcinoma patern[3, 6].

Instead of Clark and Breslow scales, the International Federation of Gynecology and Obstetrics (FIGO) staging system for cervical cancer is used for staging of cervical malignant melanoma as cervix is an unusual site for malignant melanoma and, the FIGO staging system has better correlation with prognosis.[3]

There is no consensus on optimal management of primary malignant melanoma of cervix, because of its rarity[6]. Radical hysterectomy with pelvic and paraarotic lymphadenectomy is the most common procedure which may be followed by radiotherapy or chemotherapy.

Malignant melanoma of the cervix is a rare and aggressive neoplasm [9]. The prognosis of primary malignant melanoma is generally poor because diagnosis is usually made at an advanced stage and the tumor is highly aggressive in both local recurrence and wide spread metastases [6, 10]. These patients have an average survival ranging from 6 months to 14years according to world literature [7].

CONCLUSION

Primary malignant melanoma of the cervix is a rare neoplasm. However, it should be included in the differential diagnosis of cervical malignancies. Special staining and immunohistochemistry should be used to confirm the diagnosis. Treatment of primary malignant melanoma of cervix is not yet standardized because of its rarity .In general, prognosis of primary cervical melanoma is poor, because it is diagnosed at an advanced stage. Hence early diagnosis of cervical melanoma is essential.

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