

*Case Report*

## Primary Malignant Melanoma of Cervix - A Rare Case

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### ABSTRACT

Primary malignant melanoma of uterine cervix is a rare and aggressive neoplasm. Cervical malignant melanoma has been reported in the age range of 19 to 83 years. But, it occurs more commonly between 60 to 70 years of age. It presents with abnormal vaginal bleeding or discharge and appears as exophytic, polypoidal, pigmented or colourless cervical mass.

Primary cervical malignant melanoma must be differentiated from secondary metastasis of melanoma from other sites in the body to cervix. In general, prognosis of primary cervical malignant melanoma is very poor. At present, there is no standard treatment for primary malignant melanoma of cervix, because of its rarity. Here, we are reporting a case of 28 year old woman who presented with white discharge per vagina. On examination, there was black coloured polypoidal mass arising from the anterior lip of cervix. Following histopathological examination and other investigations, a diagnosis of primary malignant melanoma of uterine cervix was made. We are reporting this case because of its rarity.

**Key words:** cervix, primary malignant melanoma.

### INTRODUCTION

Malignant melanoma is a tumour of skin and mucosal membranes. In females, approximately 3% malignant melanomas develop in genital tract.<sup>[1]</sup> And majority of these occur in vulva or vagina. Primary malignant melanoma of the uterine cervix is very rare. Only, approximately 81 cases have been reported in the literature since 1889. And their prognosis is very poor, regardless of the stage at the time of diagnosis and treatment.<sup>[2]</sup>

### CASE REPORT

28 year old female, married since 7 years, para2 live 2, both full term caesarean deliveries, last child birth 2 years back came with complaint of white per vaginal discharge since 3 months. Her menstrual cycles were regular, moderate flow. She had

past history of pulmonary tuberculosis 7 years back, for which she had taken treatment completely. She was a known case of hypothyroidism since 4 years. That was controlled on medication.

There was no other growth found over body. On per speculum examination, there was approximately 4x3 cm black coloured polypoidal growth over anterior lip of cervix ([Figure1](#)). It was bleeding on touch. On per vaginal examination, hard polypoidal growth of approximately 4x3 cm over anterior lip of cervix was felt. Bilateral fornices were free. There was not involvement of parametrium. On per rectal examination, rectal mucosa was free and there was not involvement of parametrium. So, on examination, she was having primary malignant melanoma of cervix of stage IB<sub>1</sub> (FIGO staging).



Figure 1: Per speculum examination showing black coloured growth over anterior lip of cervix.

Biopsy from growth was taken and sent for histopathological examination. That

was suggestive of malignant melanoma of cervix.

MRI was done. That was suggestive of: ill-defined altered signal intensity soft tissue involving anterior cervix with approximately measuring 3.6x 2.7 cm. It was not extending to uterine body. Bilateral ovaries appeared normal. Anteriorly, it was related to urinary bladder with maintained fat planes. Posteriorly, it was related to rectum with maintained fat planes. There was no evidence of parametrium involvement. No adnexal mass was seen. There was no evidence of retroperitoneal or pelvic lymphadenopathy. Liver, spleen, pancreas, bilateral kidneys appeared normal. After anaesthesia and surgical fitness, radical hysterectomy was done (Figure 2, 3).



Figure 2: Gross specimen showing uterus, cervix with black coloured growth, part of vagina, bilateral fallopian tubes, bilateral ovaries, and bilateral pedicles.



Figure 3: Gross specimen showing cervix with black coloured growth and part of vagina.

Histopathological examination of specimen was suggestive of malignant melanoma of cervix with metastasis in one lymph node of left internal iliac group. Immunohistochemical stains were positive for S-100, HMB 45, MELAN-A and Pancytokeratin. Postoperatively, patient was given 20 cycles of external beam radiotherapy and four cycles of brachytherapy.

## DISCUSSION

Mucosal Melanomas occur more commonly in old age. The incidence of

genital tract mucosal melanomas has been estimated as 1.6 cases per 1 million females, with only less than 2% accounting for cervical malignant melanoma. [3] Hence, primary cervical malignant melanoma is very rare.

The etiology of cervical malignant melanoma is unknown. It was only in 1959 when basal melanocytes were identified in cervical biopsies by Cid S.J. Melanocyte migration from neural crest or melanocytic differentiation from the endocervical epithelium are two theories for the presence of melanocytes in the cervix. [4] Risk factors,

such as HPV 16, radiotherapy or estrogen hormone influence, have been proposed. Malignant melanoma of cervix usually presents as vaginal discharge, bleeding either post coital or postmenopausal. Macroscopically, it appears as a polypoidal or exophytic mass of the cervix. Tumour size may vary. It can be black, grey, blue or reddish in colour or colourless in case of amelanotic tumours. [5] Diagnosis is made by obtaining biopsy of these suspicious, polypoidal cervical mass. Early diagnosis by Papanicolaou smear, colposcopy, or liquid-based cytology has also been reported. [5] Norris and Taylor proposed four criteria for diagnosis of a primary cervical malignant melanoma and these are: a) presence of melanin in the normal cervical epithelium, b) absence of melanoma in other body areas, c) evidence of junctional changes in the cervix, and d) metastases according to the pattern of cervical cancer. [2]

Staging of primary cutaneous melanomas is based on the thickness of the primary lesion. But primary cervical malignant melanoma is staged accordingly to the FIGO system for cervical cancer; as this correlates better with survival. [2]

Treatment of choice for malignant melanoma is surgical with the excision of the tumour in wide clear margins. [2,6] There is no standardized surgical approach in cervical malignant melanoma. But, radical hysterectomy with regional lymphadenectomy and/or vaginectomy is generally performed. [7] Malignant melanoma is a known radio-resistant tumour. Therefore, radiotherapy has been reserved for: a) palliative treatment of recurrences, b) in advance disease, c) unsatisfactory surgical margins, d) parametrial invasion, e) residual tumours, or f) pelvic lymph node involvement. Treatment outcomes are variable. [7] At present, chemotherapy protocols that are used for skin melanoma, are also used for cases of advanced or recurrent cervical malignant melanoma. [6] Objective response to treatment was noticed but survival was not improved significantly. Immunotherapy

with high dose Interleukin-2 has shown promising results in a small percentage of cases with metastatic disease. [8]

Cervical malignant melanoma is highly aggressive as both local recurrence and wide spread metastases usually occur within a few months to two years from initial diagnosis. [4] Relapse is more likely to be local (vagina or vulva) rather than distant. So, per speculum and per vaginal examination should be done as a part of routine follow-up. Regardless of stage and treatment, prognosis of cervical malignant melanoma is extremely poor. 87.5% of patients, reported in literature, died within 36 months of diagnosis (22.9 months overall mean survival). 41% of cases that were diagnosed at FIGO stage I was also among these. Globally, the 5-year survival is 18.8% for stage I, 11.1% for stage II and 0% for stages III–IV. [2] There is no consistency in the cervical malignant melanoma treatment approach, probably due to its rarity. [9] Malignant melanoma being radio resistance, gynaecologist should consider and discuss with patient about the extent of surgical resection.

## CONCLUSION

Prognosis of primary cervical malignant melanoma is very poor. It is very crucial to diagnose malignant melanoma of the cervix and treat at an early stage. So per speculum and per vaginal examination should be a part of clinical assessment especially for patients presenting with abnormal vaginal bleeding or discharge. Literature review suggests that the only available primary treatment is surgical excision of the tumour with wide clear margins. Chemotherapy and radiotherapy, with or without surgical excision, are given in advance stages and disease recurrences with variable outcomes.

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