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Case Report

Post-Menopausal Bleeding: A Case of Vaginal Malignant Melanoma

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Abstract

A 68 year old postmenopausal lady was referred for vaginoscopy of a vaginal lesion. The lesions were violaceous in colour, maculopapular and friable with a maximum diameter of 20 mm. Histological biopsy showed malignant melanoma cells with strongly positive Melanin A staining and brisk mitotic activity. Cells with prominent red nucleoli with eosinophilic cytoplasm were noted. A radical vulvectomy was performed 2 weeks after the initial diagnosis and the patient recovered well. Tumour histology showed a completely resected multifocal melanoma in situ with minimal focal microinvasion. The tumour was clear of all excision margins.

Discussion: 2% of the female genital tract malignancies are accounted for by vaginal carcinomas. Malignant melanoma accounts for 10% of such cases, with only 250 cases being described. White women have a higher incidence of such malignancy. Conservative local excisions give a comparable survival rate, comparing well with radical pelvic exenteration combined with local radiotherapy. 5-year survival is 10%. Lesions are usually papular to nodular. Tumour size is the most reliable predictor of survival with the tumour thickness being a poor predictor of survival. A differential diagnosis of vaginal secondary metastasis must be excluded by a proper examination, including vaginoscopy.

Conclusion: Vaginal malignant melanoma has an overall poor survival rate with a 5 - 25% 5-year survival rate due to its late diagnosis. Early diagnosis and awareness may aid survival.

Keywords: *Bleeding; Vaginal Malignant Melanoma; Vaginoscopy*

Introduction

Vaginal carcinomas account for 2% of the overall female genital tract malignancies [1]. Of these, 10% is accounted for by malignant melanoma [2], a very rare tumour which usually affects the distal vagina, especially the anterior vaginal wall [3]. White women have the highest incidence for such a malignancy [3]. Currently, conservative local excisions are giving comparable survival rates when compared to radical pelvic exenteration when combined to local radiotherapy [4]. The 5-year survival rate is about 10% [5,6].

Case Report

A 68-year-old postmenopausal lady was referred by her gynaecologist with vulval lesions after she was noted to have vaginal bleeding during a routine gynaecological examination. She was noted to have a total of three lesions over the anterior and right lateral walls of the vagina, which were maculopapular, dark blue in colour, very friable and of varying width, with a range of 10mm to 20mm. These lesions were noted in more detail during vaginoscopy, as seen in figure 1. A punch biopsy was taken from these lesions, and on histology it resulted that they were poorly differentiated malignant melanoma with large prominent red nuclei and abundant vacuolated and eosinophic cytoplasm. Brisk mitotic activity was noted and atypical forms identified. Immunostaining was negative for keratin stains and a diffuse strongly positive melanin A was noted.

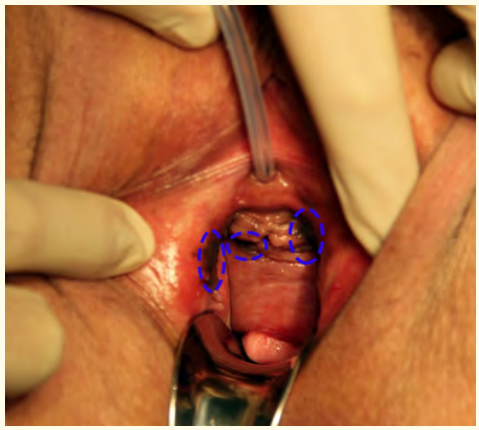

Figure 1: Vaginal lesions marked in dashed circles.

A decision for surgery with radiotherapy was taken, after the management plan was discussed with the patient. A radical vulvectomy was performed 2 weeks after the initial biopsy. A cylindrical vaginal cuff including the malignancy was excised with clear margins (Figure 2) from the tumour and the distal and proximal ends of the cuff were anastomosed together (Figure 3). The patient had a good recovery and was discharged 4 days after surgery with intent to start radiotherapy 6 weeks post-surgery.

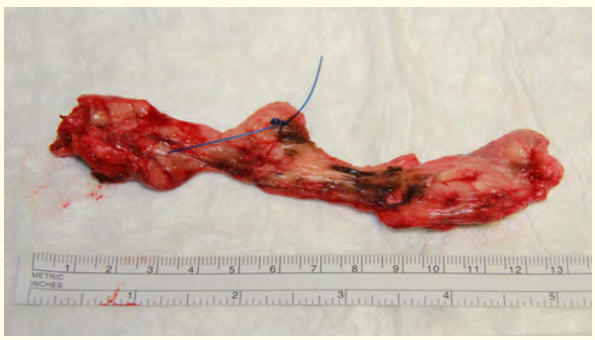

Figure 2: *Excised vaginal cuff with the malignant melanoma lesions.*

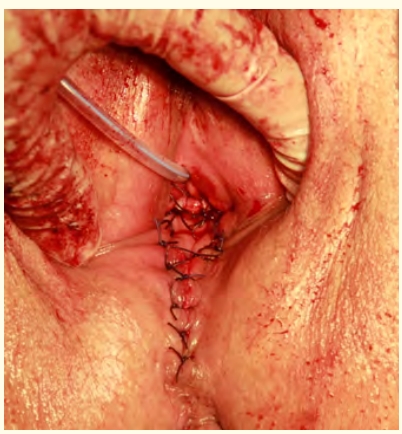

Figure 3: *End-to-End anastomosis of the proximal vagina to the vulva.*

Tissue histology showed a completely excised multifocal melanoma in situ with only focal evidence of possible microinvasion with a brisk lymphocytic response. The tumour was clear of all excision margins. Immunostaining showed negative keratin stains and diffuse strongly positive Melan A staining.

Discussion

Malignant melanoma is a tumour of the melanocytes of the skin, with growth occurring in two phases: it starts with growth in a radial fashion and then can continue to extend vertically into the dermis. It can arise de novo or from benign looking lesions which are already on the skin, after stimulation by solar radiation, especially UVA and UVB which are carcinogenic. It is the second commonest invasive caner of the vulva, although its occurrence is rare and it can easily be misdiagnosed as undifferentiated carcinoma on inspection.

The first case report of vaginal malignant melanoma was reported by Poronas in 1887 [7] and with less than 250 cases reported to date [8], it is set as a very rare malignancy of the vaginal tissue. It usually presents in the lower third of the vagina in the anterior wall and mostly affects post-menopausal females, especially in the 6th and 7th decades of life [9]. Symptoms include vaginal bleeding, a mass in the vagina or abnormal/increased discharge [10]. 80% of the presentations have pigmented melanocytic lesions with only 10 - 20% presenting with amelanocytic lesions [5]. The malignancy is usually papular to nodular in appearance in most of the presentations [5]. Tumour size is the strongest predictor of survival, whilst tumour thickness is a weak predictor of survival [11].

The differential diagnosis for a vaginal malignant melanoma includes a secondary recurrence or metastasis from a primary site [2]. Thus, a thorough examination of the patient's skin is necessary, including the patient's scalp. Others include a blue nevus, poorly differentiated squamous cell carcinoma, sarcoma or lymphoma [2]. Early local recurrence and visceral extension via haematogenous spread, distant metastasis to the lymph nodes and haemorrhage from the primary site makes its course a very dangerous one with a poor prognosis [2,8].

Treatment varies from radical surgery or conservative local excisions to radiotherapy with chemotherapy adjuncts [6]. Radical vaginal surgery includes either pelvic exenteration or total vaginectomy with or without vulvectomy. Current evidence is showing that more conservative local excisions with local radiotherapy are giving comparable results to radical surgery both in recurrence and in survival rate [2,5,6]. A staging CT/MRI scan can help in identifying secondary spread and gives guidance for radiotherapy with possible chemotherapy [12]. Fathinul Fikri., *et al*. describes the use of fluorodeoxyglucose as a glycolytic indicator for tumour-altered cell metabolism combined with multimode imaging PET/CT scanning. Such imaging has a higher sensitivity than conventional CT/MRI scanning for inconspicuous small volume lesions, especially for a CT negative imaging [12]. Local radiotherapy has been the mainstay of conservative management of post-surgical excision. Cytotoxic agents such as temozolomide, decarbazine and platinum compounds have been evaluated as a single agent or in combination, yet with limited or no success in most cases [13]. Single agent response varied between 11-22% with a median overall survival rate of 5.6-11months [13]. Frumovitz M., *et al*. [14]concluded in a study of 37 women with clinical and radiographic stage I vaginal melanoma that patients treated surgically had significantly longer survival than those treated non-surgically and that radiotherapy after wide excision reduced local recurrence risk and increased survival from 16.1 months to 29.4 months, yet such an increase was not statistically significant.

When compared with other vaginal neoplasms or primary malignant melanoma elsewhere, it usually has a worse prognosis. In fact, it has a poor survival rate of 5 - 25% [11] since most cases are diagnosed at a late stage [15].

Conclusion

Vaginal malignant melanoma remains still one of the rarest female genital malignancies. Early diagnosis combined with early surgery and radiotherapy helps to improve prognosis despite itself having a very poor 5year survival rate.

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