

Multifocal Malignant Melanoma of Female Genital Tract

M. Fallahian, Kh. Zare¹

Abstract

A 75-year-old patient was referred with vaginal bleeding. Her physical exam showed two flat dark plaques on the posterior fourchette, mostly on left lateral side of the vulva. A black soft mucosal nodule was present on the left lateral side of upper vagina, and a polypoid ulcerative cervical lesion extended into the right parametrium. Cervical and vaginal biopsies were in favor of malignant melanoma, while vulvar biopsy was in favor of *lentigo maligna melanoma*. The diagnosis was confirmed using immunohistochemical studies with S100 and HMB 45. The patient was treated by wide local excision of the vulvar lesion followed by high-doses of fractionation radiotherapy of the cervix and upper vagina. Due to advanced and aggressive melanoma of the cervix, in comparison to the *lentigo maligna* of the vulva, and the presence of vaginal melanomas on the opposite site of the cervical lesion, it is suggested that the origin of these two lesions are multi focal rather than the direct extension.

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Keywords • Malignant melanoma • Female genital tract • Multi focal

Introduction

Malignant melanoma of female genital tract are rare tumors and in most unusual cases they involve the uterine cervix.¹ These tumors have generally been reported to be present in immune-compromised patients being in their 7th or 8th decades of their life.² Most of these lesions are presented with abnormal vaginal bleeding.³ The clinical behavior of these tumors are notoriously more aggressive than that of cutaneous melanoma.⁴ Although, some authors believe that the size of the tumor is the strongest predictor of survival, others believe that tumor thickness is a predictor of survival involvement.^{4,5}

Although, the treatment of these tumors are not well codified, conservative procedures should be used to handle the invasive melanoma of the lower female genital tract.⁵ Further, radical procedures should also be reserved for the palliation rather than cure.⁵

Case report

A 75-year-old multiparous patient referred to the Taleghani Hospital, affiliated to Shaheed Beheshti University of Medical Sciences, with vaginal bleeding that was started two months before her admission. Her medical history indicated that she

Department of Obstetrics &Gynecology;
Infertility and Reproductive Health
Research Center,
¹Departments of Pathology,
Taleghani Hospital,
Shaheed Beheshti University of Medical
Sciences,
Tehran, Iran.

Correspondence:

Masoumeh Fallahian MD, MPH,
Department of Obstetrics &Gynecology,
Taleghani Hospital,
Shaheed Beheshti University of Medical
Sciences,
Tehran, Iran.
Tel/Fax: +98 21 88844304
E-mail: m_fallahian@yahoo.com

had diabetes mellitus and hypertension for more than ten years and was severely osteoporotic.

Physical examination showed two dark flat plaques on the posterior fourchette of the vulvae (Fig 1), one solitary soft black nodule measuring one cm on the left lateral side of the upper vagina, and a stage IIB polypoid ulcerated lesion on the cervix extending into the right parametrium.



Fig 1: Vulvae melanoma: two dark plaques on the posterior fourchette.

Laboratory and imaging studies including chest radiography, computed tomography of the pelvis, abdomen, and the brain showed no specific abnormality. Biopsies of the vulva, the vagina, and the uterine cervix denoted malignant melanoma of the cervix and vagina (Fig 2). Lentigo maligna melanoma of the vulva revealed keratinizing stratified squamous epithelium with dysplastic cell hyper pigmentation overlying a fibro vascular stroma. Malignant melanoma was also confirmed by using immunohistochemical staining technique with expression of two melanocytic differentiation markers, S100 protein and HMB45 antibody.

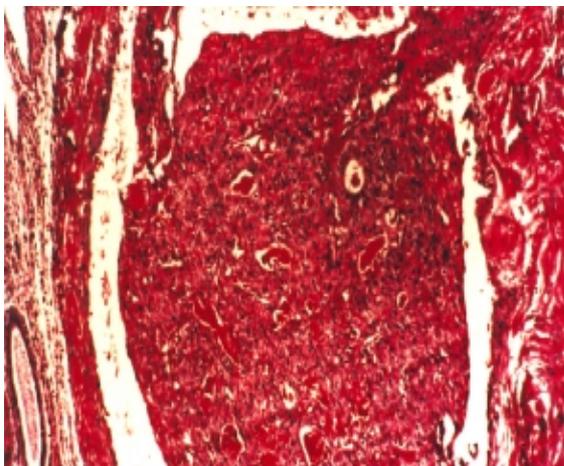


Fig 2: Malignant melanoma of the uterine cervix, malignant cells with high N/C ratio and hyperchromatic nuclei, around arterioles in a myxomatous background.

Medical condition of the patient did not allow radical or extensive surgery; therefore, wide local excision of the vulva was performed followed by pelvic radiotherapy of the cervical lesion. Three weeks after local excision of the vulva, a mucosal nodule of melanoma, appeared on the left lower part of the vagina, was removed by local excision. Eleven months follow up of the patient disclosed full remission.

Discussion

Primary melanoma of the uterine cervix represents an extremely rare malignancy. Review of the literature shows that vulva is not a common site for genital tract melanoma.⁶ It mainly occurs in areas that have no sun exposure and no predisposing risk factors are identified to make the diagnosis of this disease easy. Recognition of the differences between a primary lesion and a metastatic melanoma, due to the lack of definitive pathological and clinical criteria, is often challenging. However, malignant melanoma is often diagnosed by the presence of melanin granules, when verified by immunohistochemical staining with the HMB-45 antibody and for the S-100 protein.⁷

Recent literature has raised questions regarding the recommended treatment strategies of malignant melanoma.⁸ Although, earlier reports have advocated radical surgery as being the mainstay of therapy, recurrence and survival rates were not changed in case of radical surgery or local excision.^{5,6} The most recent data are in favor of full remission following conservative approach and radiation therapy.⁹ Adjuvant radiotherapy when combined with surgery, plays a role, particularly in the head and the neck regions and female genitalia, but it does not have any cure when is used as a prophylactic method in nodal and loco-regionally advanced patients.⁸ Hence, there is no correlation between the outcome of the disease and the types of surgery, radiotherapy, or chemotherapy.⁹

Radical surgery was not the first choice for our patient, because of poor medical conditions and extension of the disease; hence, a wide local excision of the *lentigo maligna melanoma* of the vulva was done and pelvic radiotherapy was performed to control cervical involvement. Due to the scarcity of multifocal genital melanoma, it is hard to make significant advances in the treatment strategies and therapeutic modalities of the disease. Therefore, based on the site of the tumor and the extension of tumoral invasion, each patient should be treated differently.

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