Primary malignant melanoma of the vagina: A case report

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Summary

Primary malignant melanoma of the vagina is a very rare, but very aggressive tumor. We describe a case of primary vaginal melanoma and review the literature. The patient, a 73-year-old, gravida 2, para 2 postmenopausal Greek woman, presented with abnormal vaginal bleeding for 30 days. On vaginal examination there was a 5.5 x 5 x 2 cm raised, ulcerated and irregular lesion on the posterior vaginal wall. Pathology examination of the entire specimen demonstrated a nodular vaginal melanoma. The histologic diagnosis was confirmed by positive immunostaining. The patient began postoperative immunotherapy with interferon-a2b. She died 25 months later because of cerebral metastases. In conclusion, the prognosis of vaginal melanoma is very poor, despite the treatment modality, because most cases are diagnosed at a late stage.

Key words: Vaginal melanoma; Immunotherapy; Radiotherapy; Surgery.

Introduction

Primary malignant melanoma of the vagina is a very rare, but very aggressive tumor. The incidence of primary vaginal melanoma is about 0.026/100,000 women per year [1]. The average age is the 6th and 7th decades of life [2]. The prognosis of vaginal melanoma is very poor, despite the various treatment modalities described.

Case Report

A 73-year-old, gravida 2, para 2, postmenopausal Greek woman presented with abnormal vaginal bleeding of 30 days duration which had increased progressively the last ten days.

Her past surgical history was significant for anterior and posterior colporraphy. Her family history was unremarkable.

On vaginal examination there was a 5.5 x 5 x 2 cm raised, ulcerated and irregular lesion of posterior vaginal wall. There were no palpable inguinal lymph nodes, and the rest of pelvic examination was normal.

Preoperative computed tomography (CT) of the chest, abdomen and pelvis, abdominal ultrasound (US), chest X-ray, colonoscopy and urethrocystoscopy were normal.

A wide local excision was performed. Pathology examination of the entire specimen demonstrated a nodular vaginal melanoma, with clear lateral and deep margins. Some remarkable histological findings were 16 mitoses/mm^2, Breslow depth > 15 mm, and cytoplasmic melanin pigmentation (Figure 1).

The histologic diagnosis was confirmed by positive immunostaining. Tumor cells were immunopositive for S-100 protein (Figure 2), for Melan A (Figure 3) and for HMB 45 (Figure 4).

The patient denied postoperative radiotherapy. She began postoperative immunotherapy with interferon-a2b three times a week.

Seventeen months after excision of the lesion, the patient presented with abnormal vaginal bleeding again. Pelvic examination revealed a vaginal mass, 5 x 3 cm, and two enlarged inguinal lymph nodes (r) 3 cm in diameter. The patient declined postoperative radiotherapy again.

Two months later, she presented with a sudden onset of severe headache. CT revealed multiple cerebral metastases. At the same time invasion of urethra was seen.

She died six months later because of cerebral metastases.

Discussion

Vaginal melanoma has a high incidence of local recurrence and regional or distal metastasis. Fifty percent have positive lymph nodes [3] and nearly 20% of patients have distant metastases [4] at disease presentation. This may be explained by the extensive lymphatic and vascular supply to the lamina propria of the vaginal mucous membranes.

Overall 5-year survival ranges from 14 to 21%. Tumor size is the most important prognostic factor [5], but tumor thickness does not affect survival. Other potential prognostic factors such as age, location, FIGO stage, depth of invasion, Chung level, histology, cell type, mitotic count, vessel involvement, ulceration, p53 accumulation, type of surgery, type of radiotherapy, and chemotherapy do not seem to correlate with patients' outcome [6].

No differences in survival or disease-free interval were demonstrated between patients who had radical surgical procedures compared to more conservative surgical procedures [7].

Radiotherapy is performed as an adjuvant therapy to achieve control of hidden metastases. Radiotherapy may be of value as an alternative to surgery or an adjunct modality in patients with lesions ≤ 3 cm in diameter [6].

Immunotherapy with interferon has also been shown to confer survival benefits in patients at high risk for recurrence, but toxicity has been important [8].

Vaginal melanoma is highly malignant and is more aggressive than nongenital and vulvar melanoma [3, 9].

Conclusion

The prognosis of vaginal melanoma is very poor, despite the treatment modality, because most cases are diagnosed at late stage.

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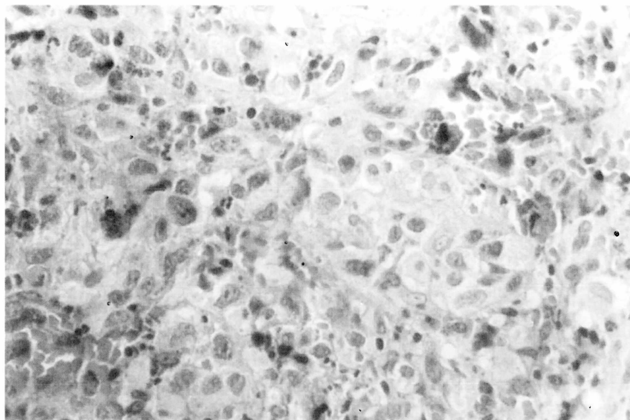
Fig. 1



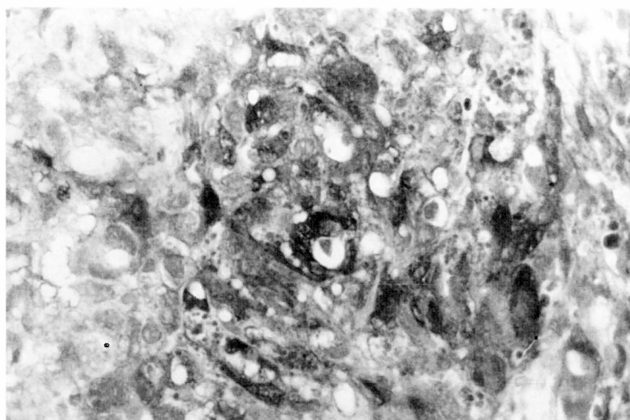


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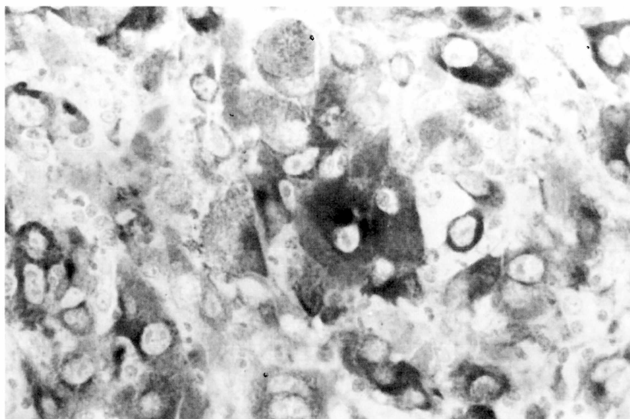
Fig. 3



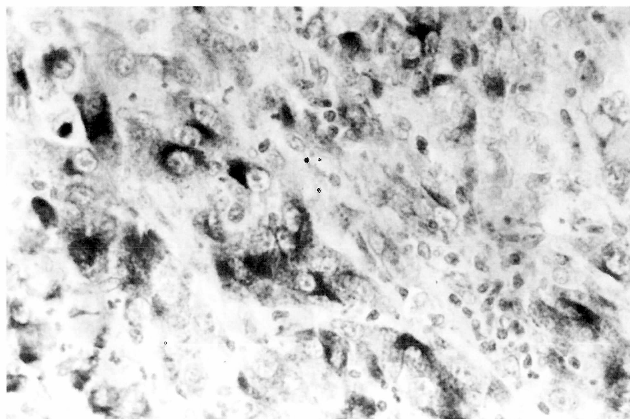


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Figure 1. — Nests of malignant melanocytic cells. We can see macrophages plenty of melanin.
Figure 2. — Tumor cells immunopositive for S-100 protein.
Figure 3. — Tumor cells immunopositive for Melan A.
Figure 4. — Tumor cells immunopositive for HMB 45.

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