

# Vulvar melanoma presenting as postmenopausal bleeding: a case report

A. Koumousidis<sup>1</sup>, C. Sofoudis<sup>1</sup>, N. Marikakis<sup>2</sup>, A. Ciopec<sup>1</sup>, M. Adamczyk<sup>1</sup>, G. Vakis<sup>3</sup>, P. Sinha<sup>1</sup>

<sup>1</sup>Department of Obstetrics & Gynecology, Conquest Hospital, East Sussex; <sup>2</sup>Department of General Surgery, Conquest Hospital, East Sussex (England); <sup>3</sup>Plastic Surgery Department, National and Kapodistrian University of Athens, Athens (Greece)

## Summary

Primary melanomas of the vulva are extremely rare, creating obstacles in the differential diagnosis of other epithelial and non-epithelial malignancies. Due to their rarity, there are only approximately 250 cases reported in the current literature. Vulvar melanomas tend to relapse locally, as well as develop locoregional and distant metastasis through lymph node and haematic dissemination. The authors describe a case of an 84-year-old Caucasian female patient, presenting with postmenopausal bleeding, consistent with primary vulvar melanoma cause, which was successfully diagnosed and treated accordingly.

*Key words:* Vulvar melanoma; Chemotherapy; Radiotherapy.

## Introduction

Primary vulvar melanomas represent rare entities in the current bibliography. They account for 7% to 10% of all vulvar malignancies [1, 2]. Predisposing factors, such as ulcer formations, former local radiation, presence of HPV lesion, diabetes mellitus or immunosuppression, play without any doubt a very important role. Among all the prognostic factors, tumor size, depth of the invasion, lymphatic status, and grading, affect the therapeutic management [3]. The treatment of choice, regarding all melanotic lesions, especially those in the vulvar region, remains a surgical one. In most cases, wide excision with two- to three-cm margins may replace the traditional radical vulvectomy. On the other hand, in cases of lymphatic infiltration, a bilateral inguinal femoral lymphadenectomy should be considered. We must never forget the role of the sentinel node biopsy in order to avoid the lymphatic dissection. In locally advanced cases potentially requiring an extra-radical management, radiation therapy alone or together with immunotherapy remains a valuable approach.

## Case Report

An 84 year-old Caucasian woman (gravida5, para5) presented with small amount of fresh bleeding, noted on tissue paper while patient was wiping herself. This was associated with pain or trauma. The patient had no history of diabetes, no family history of endometrial, colorectal or hereditary non-polyposis colorectal cancer, and she was not taking any exogenous hormones. Her last smear was at the age of 65 and it was normal. During the aforementioned bleeding period, she did not notice any discoloration or ulceration in the external genitalia, neither any lump in the lower abdomen, nor fever or bladder symptoms or significant weight

loss. The physical examination revealed the presence of a black raised lesion, around 3×2 cm with irregular and distinct borders at right labium minus and satellite lesions at left labium. The lesions were non-tender, but bled on touch (Figure 1). According to the above physical findings, a biopsy became mandatory. The histological examination revealed a mucosal malignant melanoma, without B raf-gene (BRFA) V 600 mutation. The CT of the thorax/abdomen/pelvis revealed no evidence of metastatic lesions. The bone window setting described mild degenerative changes throughout the lumbar spine. The patient underwent radical anterior vulvectomy and bilateral inguinal-femoral lymphadenectomy. The histologic report revealed the presence of ulceration, mitotic figures 26 per mm<sup>2</sup>, Breslow's thickness of 3.0 mm, no signs of regression or lymphovascular/perineural invasion or microsatellites. The resection margins were 3.5 mm in situ component and the depth was 14 mm. According to American Joint Commission on Cancer (AJCC) TNM staging system, the lesion was T3bNxMx.

Postoperatively, the patient underwent cycles of radiotherapy. During her follow up (ten weeks postoperatively) the physical examination did not reveal any signs of regression. On the other hand, a 2×2 cm palpable lymph node at the right inguinal region was discovered. The ultrasound examination described enlarged nodes 2×2 cm at the right groin area, with increased vascularity, consistent with nodal recurrence. The thorax/abdominal/pelvic CT revealed multiple liver metastasis (largest lesion 18 mm) and two metastatic lymph nodes (4×3 cm) in the right inguinal region (Figure 2). The patient underwent cycles of palliative chemotherapy, followed by cisplatin, carboplatin, and paclitaxel. Unfortunately, she died within the first year.

## Discussion

Malignant melanoma of the vulva represents the second most common malignancy of the vulva accounting for a median rate of 8.5% of all melanoma cases.[4] According

Revised manuscript accepted for publication July 7, 2015



Figure 1. — Primary melanoma of the vulva.

to the current literature, the five-year survival rates for the vulvar melanoma ranges from 20% to 56% [5]. The present report confirms the overall poor prognosis for vulvar melanomas as noted by Jaramillo *et al.* [6]. Over a 30-year period (1973 to 2003), there were only 644 cases of vulvar melanoma identified within Surveillance Epidemiology and End Results (SEER) database of the U.S. National Cancer Institute (NCI) [7]. According to recent studies, the majority (> 85%) of the patients, expressing vulvar melanoma, are Caucasian [8]. In general though, it is very difficult to describe the race distribution. Therefore, more studies should be conducted in the future. Imaging techniques are essential for the initial evaluation of the lesion. Pelvic MRI can provide important information regarding the extension of the local infiltration and can help in the therapeutic mapping. In order to distinguish metastatic lesions, a multidetector CT or PET/CT is mandatory. Despite the surgical and adjuvant therapy, many cases of vulvar melanomas are treated by antiangiogenic therapy [9]. Many clinical trials suggest the provision of adjuvant interferon-alpha (IFN- $\alpha$ ) regarding the increase of recurrence free survival, but this seems not to affect the overall survival. Vulvar melanomas express higher recurrence rate in comparison with other cutaneous or mucosal melanomas. The recurrence rate is approximately 60% [10]. Classical agents concerning doses of adjuvant therapy consist of platinum/taxane regimens with



Figure 2. — Abdominal CT showing the liver metastasis 'A', with the arrow pointing to the lesion.

a response rate of 20% [11]. New and promising agents targeting the T-cell stimulation represent the future management options [12].

### Conclusion

According to the recent bibliography, vulvar melanomas represent rare entities. In many cases the prognosis and the overall survival rates are poor. Multidisciplinary cooperation in order to establish the ultimate management mapping becomes mandatory.

### References

- [1] Platz C.E., Benda J.A.: "Female genital cancer". *Cancer*, 1995, 75, 270.
- [2] Chung A.F., Woodruff J.M., Lewis J.L. Jr.: "Malignant melanoma of the vulva: A report of 44 cases". *Obstet. Gynecol.*, 1975, 45, 638.
- [3] Räber G., Mempel V., Jackisch C., Hundeiker M., Heinecke A., Kürzl R., *et al.*: "Malignant melanoma of the vulva. Report of 89 patients". *Cancer*, 1996, 78, 1258.
- [4] Ariel I.M.: "Malignant melanoma of the female genital system: a report of 48 patients and review of the literature". *J. Surg. Oncol.*, 1981, 16, 371.
- [5] Bradgate M.G., Rollason T.P., McConkey C.C., Powell J.: "Malignant melanoma of the vulva: a clinicopathological study of 50 women". *Br. J. Obstet. Gynaecol.*, 1990, 97, 124.
- [6] Jaramillo B.A., Ganjei P., Averette H.E., Sevin B.U., Lovecchio J.L.: "Malignant melanoma of the vulva". *Obstet. Gynaecol.*, 1985, 66, 398.

- [7] Sugiyama V.E., Chan J.K., Shin J.Y., Berek J.S., Osann K., Kapp D.S.: "Vulvar melanoma: a multivariable analysis of 644 patients". *Obstet. Gynecol.*, 2007, 110, 296.
- [8] Verschraegen C.F., Benjapibal M., Supakrapongkul W., Levy L.B., Ross M., Atkinson E.N., *et al.*: "Vulvar melanoma at the M.D.Anderson Cancer Center: 25 years later". *Int. Gynecol. Cancer*, 2001, 11, 359.
- [9] Kirkwood J.M., Ibrahim J.G., Sondak V.K., Richards J., Flaherty L.E., Ernstoff M.S., *et al.*: "High-and low-dose interferon alfa-2b in high-risk melanoma: first analysis of intergroup trial E1690/S9111/C9190". *J. Clin. Oncol.*, 2000, 18, 2444.
- [10] Smyth E.C., Flavin M., Pulitzer M.P., Gardner G.J., Costantino P.D., Chi D.S., *et al.*: "Treatment of locally recurrent mucosal melanoma with topical imiquimod". *J. Clin. Oncol.*, 2011, 29, e809
- [11] Coit D.G., Andtbacka R., Bichakjian C.K., Dilawari R.A., Dimaio D., Guild V., *et al.*: "Melanoma". *J. Natl. Compr. Canc. Netw.*, 2009, 7, 250.
- [12] Topalian S.L., Hodi F.S., Brahmer J.R., Gettinger S.N., Smith D.C., McDermott D.F., *et al.*: "Safety, activity and immune correlates of anti-PD-1 antibody in cancer". *N. Engl. J. Med.*, 2012, 366, 2443.

Address reprint requests to:  
C. SOFOUDIS, M.D.  
Ippokratous str. 209  
11472 Athens (Greece)  
e-mail: [chrisostomos.sofoudis@gmail.com](mailto:chrisostomos.sofoudis@gmail.com)