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Melanotic Macules of the Penis

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To the Editor:
After reading the article by Laguna et al,[1] published in this journal, we wished to contribute a new example, and to propose a series of considerations for improved management of these patients.

We present the case of a 29-year-old patient, with no relevant personal history, who consulted for multifocal pigmented macules of varying coloration on the penis; these were symptom free and had been present since the patient was 14 years old. The patient described the ongoing appearance of pigmented lesions with varying dark coloration (Figure 1). Histology revealed hyperpigmentation of the basal layer, with no increase in the number of melanocytes or the frequency of atypical cells (Figure 2).

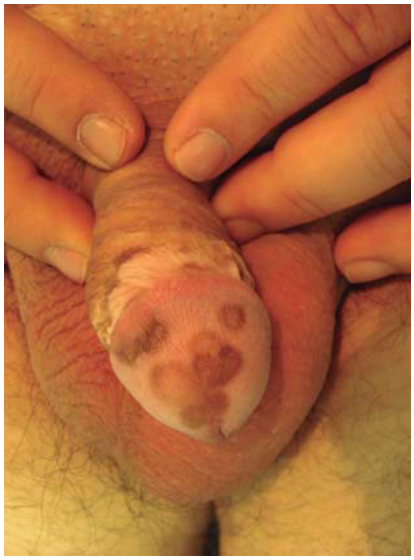

Figure 1. Multifocal macules of varying coloration.

Melanotic macules on the penis—wrongly termed lentigines—are idiopathic and benign lesions, occasionally multifocal, of varying color, and irregular, which require differential diagnosis from mucosal melanoma.[1] Unlike melanoma, melanotic macules tend to appear in adulthood, not amongst the elderly, and they tend to remain stable for decades.

Histology confirms that the macules are benign. They are characterized by acanthosis with no elongation of the papillary ridges, hyperpigmentation of the basal layer with no increase in the number of melanocytes (hence they should not be termed lentigines), pigmentary incontinence, and the occasional presence of melanophages, all this with an absence of atypical melanocytes.[2]

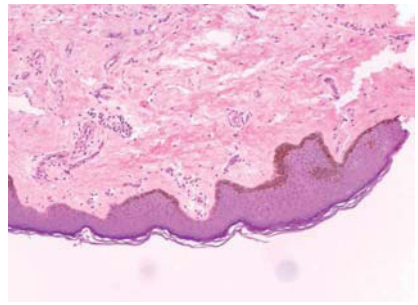

Figure 2. Hyperpigmentation of the basal layer, with no increase in number or atypical features of melanocytes (Hematoxylin-eosin, ×40).

When the lesions are irregular with varied coloration, or the patient reports changes or an increase in number of the same, ideally the entire macule would be surgically removed for a complete histological examination. In multifocal lesions, which are those that tend to necessitate differential diagnosis with melanoma, complete excision of the lesion is not usually feasible, and consequently several biopsies should be performed, choosing the sites carefully, in order to confirm if the case is benign. Dermatoscopy may be a useful tool to identify the most suitable biopsy site.[3]

In spite of the fact that melanotic macules are not considered precursors of melanoma, a small number of publications describe the possibility of their becoming malignant.[4,5] Kahn et al[4] reported the case of a pigmented lesion on the palate that developed into mucosal melanoma. However, a significant clinical abnormality was observed in the initial lesion, and histology revealed melanocytic hyperplasia, and it can therefore be assumed that this was not a true melanotic macule. Taylor et al[5] do appear to have documented the development of a melanotic macule into an invasive melanoma. In this case, in the first biopsy—which included the entire lesion—increased pigmentation only occurred in the basal layer with neither hyperplasia nor atypical melanocytes, yet in biopsies performed 5 years later, nests of malignant melanocytes could be seen migrating through the mucosa.

While no definitive decision can be made on the potential for malignancy, we believe periodic follow-up is advisable. In most cases, given the stability of the lesions, further biopsies would not be necessary, although these would be proposed in cases presenting suspicious clinical changes. Once again, dermatoscopy, and monitoring with digital dermatoscopy, can be used to detect early changes and to choose the timing and location of the biopsy.[3]

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