some forms of brain tumor; although such outcomes have not been demonstrated for melanoma.

The cells of retinoblastoma, melanoma and dysplastic nevus are derived from the neural crest. There are authors who postulate that patients with retinoblastoma and dysplastic nevus syndrome have increased genetic susceptibility to melanoma due to a primary anomaly in the neural crest.

The association between retinoblastoma and melanoma is a controversial issue potentially dependent upon genetic predisposition or the forms of treatment received. Patients with retinoblastoma have an almost 10-fold greater risk of suffering from melanoma than those with no history of retinoblastoma, especially in cases of bilateral or hereditary types. Consequently, close follow-up of these patients is vitally important, especially in patients with associated dysplastic nevus syndrome.

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Conflicts of Interest
The authors declare no conflicts of interest.

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Parallel Ridge Pattern in Acral Melanoma: Biopsy Processing Technique Can Affect Histological Diagnosis

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Figure 1. Flat, variegated pigmented lesion on the right heel, 2 cm in diameter. Dermoscopy: Dermoscopy ridge pattern.

To the Editor:

The skin on the palms and soles presents anatomical and histological peculiarities suited to the particular pressures exerted upon it. Consequently, differential diagnosis of acral melanocytic lesions based exclusively on clinical and histological criteria can become a very complicated matter. Dermoscopy is a very helpful tool in difficult cases.

We present the case of a 45-year-old patient with no relevant history, of north African origin with phototype IV skin, who consulted for a slow-growing pigmented lesion on the sole of the right foot that had appeared 2 years previously. Examination revealed a well defined variegated macule on the heel, measuring 2 cm across. Dermoscopy revealed this to be a melanocytic lesion with a ridge pattern (Figure 1).

Two biopsies were taken from areas within the ridge pattern as clinical and dermoscopic examinations raised the possibility of melanoma. Both biopsies showed epidermal hyperplasia with isolated melanocytes at the dermal-epidermal junction—findings characteristic of an acrolentiginous nevus (Figure 2).

The possibility of melanoma led to the subsequent complete removal of the lesion. Sections of tissue were taken perpendicularly to the dermatoglyphs or skin markings for histological studies. Histology revealed a hyperplastic epidermis with atypical nests of melanocytes in the crista profunda intermedia, leading to a diagnosis of acrolentiginous melanoma (Figures 3 and 4).

The patient attended periodical follow-up appointments and remained free of the condition for 3 years.

Definitions of histological criteria for malignancy in other anatomical areas cannot be easily applied to the palms and soles. For instance, findings such as atypical junctional activity, reactive elongation of the interpapillary furrows, or the migration of melanocytes to the upper layers of the epidermis are all characteristic signs of nonacral dysplastic nevi that can also be seen in benign melanocytic lesions on volar skin. This overlap between the histological criteria for identifying malignant and benign tissue can complicate diagnosis immensely at times. Dermoscopy can increase diagnostic precision of melanoma by between 5% and 30% above visual inspection in such cases.

At present, 2 schemes are used for the classification of dermoscopy patterns in acral melanocytic lesions.[1-3] An online consensus meeting on dermoscopy held in 2003[4] approved the classification provided by Saida et al due to its ease of use, and this is now the most widely used system. The basic classification cites 4 patterns associated with benign nevi: parallel furrow, lattice-like, fibrillar, and non-typical. Later additions to this list include patterns such as the homogeneous, globular and acral reticular,[5] transition,[6] and globulostreak-like.[7]

On the other hand, the parallel ridge pattern (PRP) and irregular diffuse pigmentation are findings specific to melanoma. Although the diagnostic reliability of PRP is higher in the detection of acral melanoma in general and for in situ melanoma in particular,[8] irregular diffuse pigmentation represents tumoral invasion, and so the sensitivity and positive predictive value increases in invasive melanoma.[8]

Volar skin has characteristic parallel skin markings that are divided into ridges and furrows. In dermoscopic terms, PRP is characterized by the presence of pigmentation in parallel bands, along the ridges of the skin markings. This pigmentation can be due to iron deposits (in subcorneal hematomas) or melanin (in melanoma, macules with racial pigmentation, or Peutz-Jegher syndrome).

Histologically, the ridges of the skin markings overlie the crista profunda intermedia, whereas the furrows

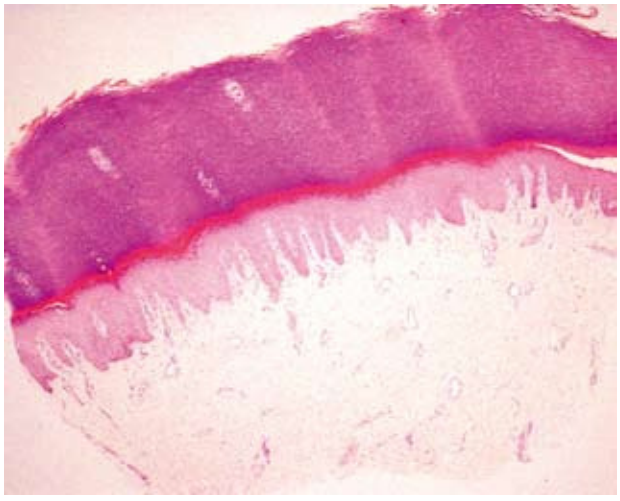

Figure 2. Epidermal hyperplasia with scattered melanocytes along the dermal-epidermal union. (Hematoxylin-eosin, ×10)

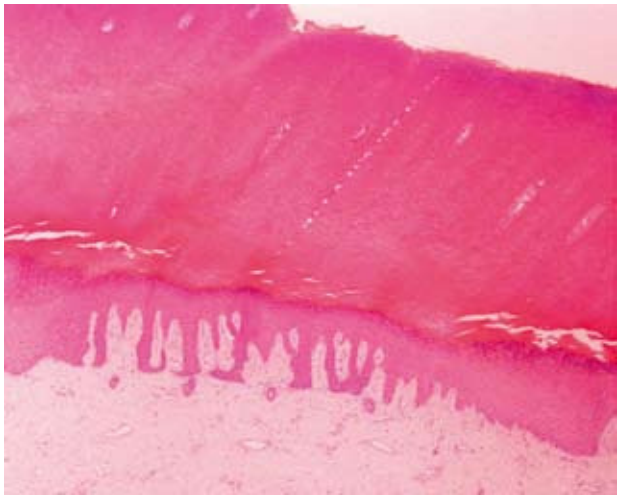

Figure 3. Histological sample cut perpendicularly to the dermatoglyphs. (Hematoxylin-eosin, ×10)

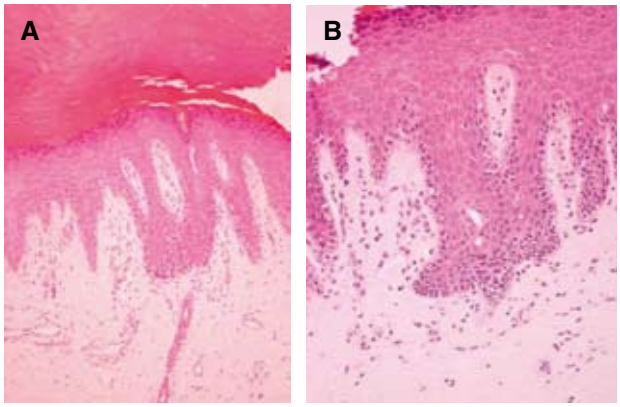

Figure 4. Detail of proliferation of atypical melanocytes around the eccrine ducts. (Hematoxylin-eosin, ×40)

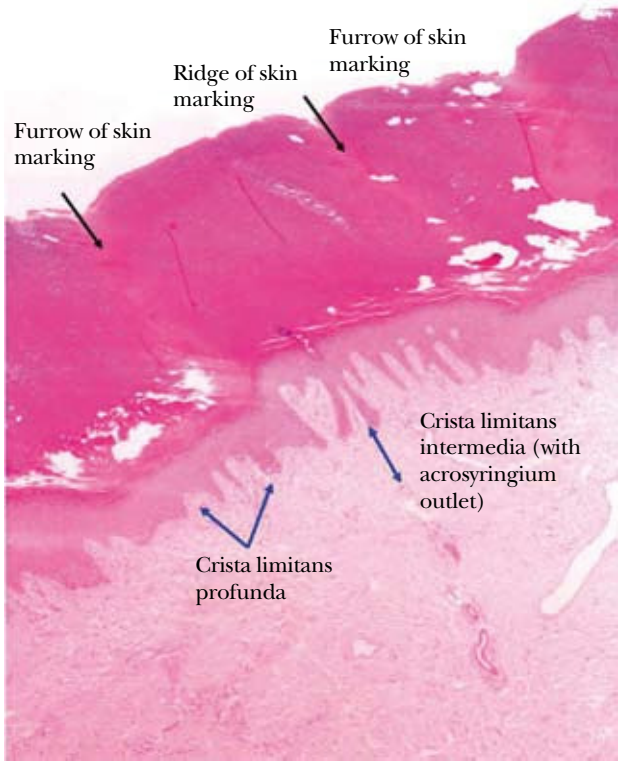

Figure 5. Schematic representation of volar skin. (Hematoxylin-eosin, ×10).

between the ridges overlie the crista limitans that separates the interpapillary processes (Figure 5). Recent studies show the proliferation of atypical melanocytes around the acrosyringium (located in the crista profunda intermedia) is an incipient sign of the development of acral melanoma.[9] PRP is a direct outcome of this proliferation of atypical melanocytes. It thus constitutes an early marker of acral melanoma, with high sensitivity (86.4%), specificity (99%), and diagnostic precision (81.7%) for melanoma.[8]

However, the diagnostic yield of this dermoscopic indicator is frequently reduced in clinical practice when samples are selected and processed without due rigor.

In 1999, Signoretti et al[9] showed that pathological findings of benignity in melanocytic acral nevi (symmetry, borders of the lesion or presence of columns of melanin) were detected more often if the tissue sections were cut perpendicularly to skin markings. Later, in an interesting study, Ishiara et al[10] undertook a retrospective analysis of the dermoscopic-histological correlation of 22 acral melanocytic lesions with PRP where no clinical or histological diagnosis had been made. They observed that incipient pathological changes could be detected around the acrosyringia in 90.9% of these cases when the tissue section was cut perpendicularly to the skin markings, as this allowed for observation of the crista profunda intermedia. In our patient a diagnostic outcome was obtained only in a third biopsy, when the sample was cut according to the suggestions made by Ishiara et al.

Another point worthy of consideration is that histological diagnosis of acral melanocytic lesions is based on the architecture of the lesion, information that can only be evaluated in tissue samples from complete surgical removal.

Unfortunately, despite all these considerations, histological diagnosis of some suspect pigmented lesions is rendered impossible by the low cellularity of the sample. In such cases, the use of molecular biology techniques would be advisable to detect chromosomal abnormalities associated with acrolentiginous melanoma (especially amplifications of the cyclin D1 gene).[11]

In conclusion, while the ridge pattern cannot be considered an absolute marker of acral melanoma, it does constitute a highly specific parameter. In order to increase diagnostic yield, we therefore recommend excisional biopsy of all lesions presenting PRP on volar skin, with histological study of tissue sections cut perpendicularly to the skin markings.

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Conflicts of Interest
The authors declare no conflicts of interest.

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Docetaxel-induced Psoriasis

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To the Editor:

The taxanes are chemotherapy drugs that have been widely used since their introduction in the late 1980s.[1,2] Various types of skin toxicity have been described due to their increased use and range of indications. We present a case of docetaxel-induced psoriasis that has not been previously reported.

The patient was a 65-year-old man with no known drug allergies, a history of silicosis and generalized arthrosis, and a brother with psoriasis. He was diagnosed with squamous cell carcinoma of the lung in 2007 and began treatment with docetaxel because of tumor progression in April 2008. Eight days after the first cycle of docetaxel, disperse psoriasis-like punctuate erythematosquamous lesions began to spread over his trunk and limbs (Figure 1). The nails, genitals, mucus membranes, and scalp were unaffected and the patient was in a generally good state with no systemic symptoms or arthritis. Tests confirmed only slight anemia, with a normal total and differential white blood count.

A biopsy was taken of a lesion to confirm the diagnosis made on the basis of symptoms and the family history of psoriasis. Pathologic study showed an epidermis with psoriasiform hyperplasia, acanthosis, parakeratosis, elongation of the interpapillary ridges, isolated lymphocytes, and a polynuclear infiltrate in the mid and upper layers of the epidermis forming spongiform pustules of Kogoj. The dermis showed a perivascular inflammatory infiltrate associated with dilated capillaries (Figure 2)—all compatible with psoriasis. Topical treatment with corticosteroids and calcipotriol was initiated and the patient responded well to treatment. The lesions returned in May 2008 with the

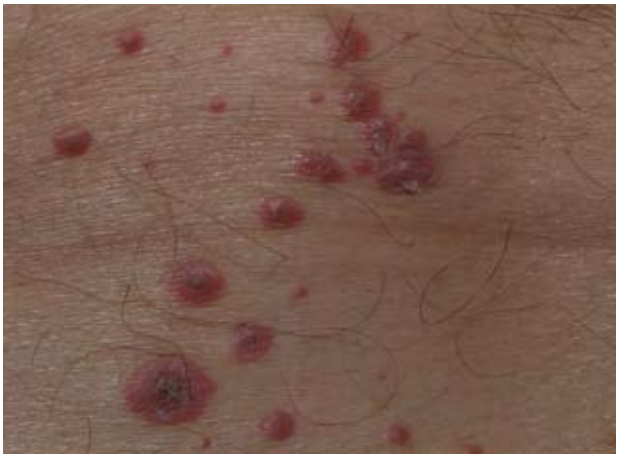

Figure 1. Scaly erythematous plaques on the trunk.

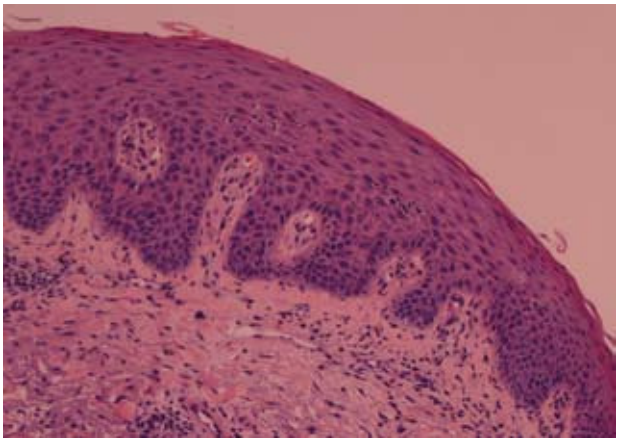

Figure 2. Histopathology image of the lesion on the back (Hematoxylin-eosin ×40).