

Acral pigmented lesions: do dermoscopy!

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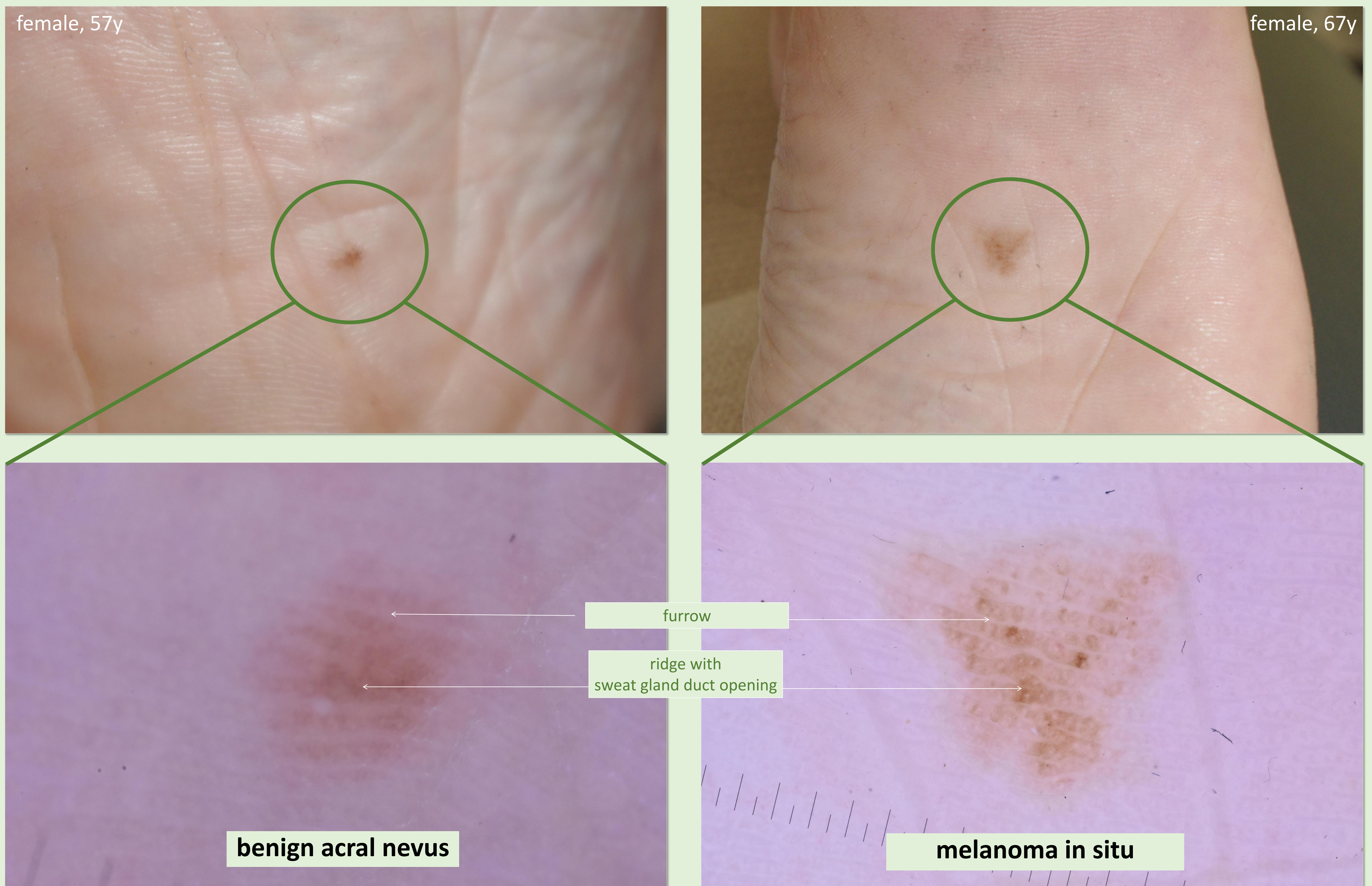
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Introduction

Early diagnosis of a plantar melanoma is a challenge. With naked-eye examination, the differential diagnosis with a benign nevus is nearly impossible. Dermoscopically, two typical patterns can improve diagnostic accuracy: the **parallel furrow pattern** (pigmentation in the furrows of the skin markings), associated with benign lesions, and the **parallel ridge pattern** (pigmentation along the ridges of the skin markings) considered to be the dermoscopic hallmark of an acral lentiginous melanoma.

Case presentation

We recently saw two female patients, 57 and 67 years old, with a clinically inconspicuous pigmented lesion on the sole but a parallel ridge pattern on dermoscopy. Both lesions were excised and histological evaluation revealed a benign acral nevus in one case and a melanoma in situ in the other.



Discussion

Histologically, in a parallel furrow pattern, nests of acral naevus cells are seen in the crista profunda limitans under the surface furrow (blue dots in the figure). In contrast, the parallel ridge pattern corresponds to the proliferation of melanoma cells in the crista profunda intermedia under the surface ridge (red dots in the figure). The ridges can easily be recognized because they show the duct openings of the eccrine sweat glands (see figure).

The finding of a parallel ridge pattern is an important criterion for plantar melanoma with a high sensitivity, although the positive predictive value is not 100%.

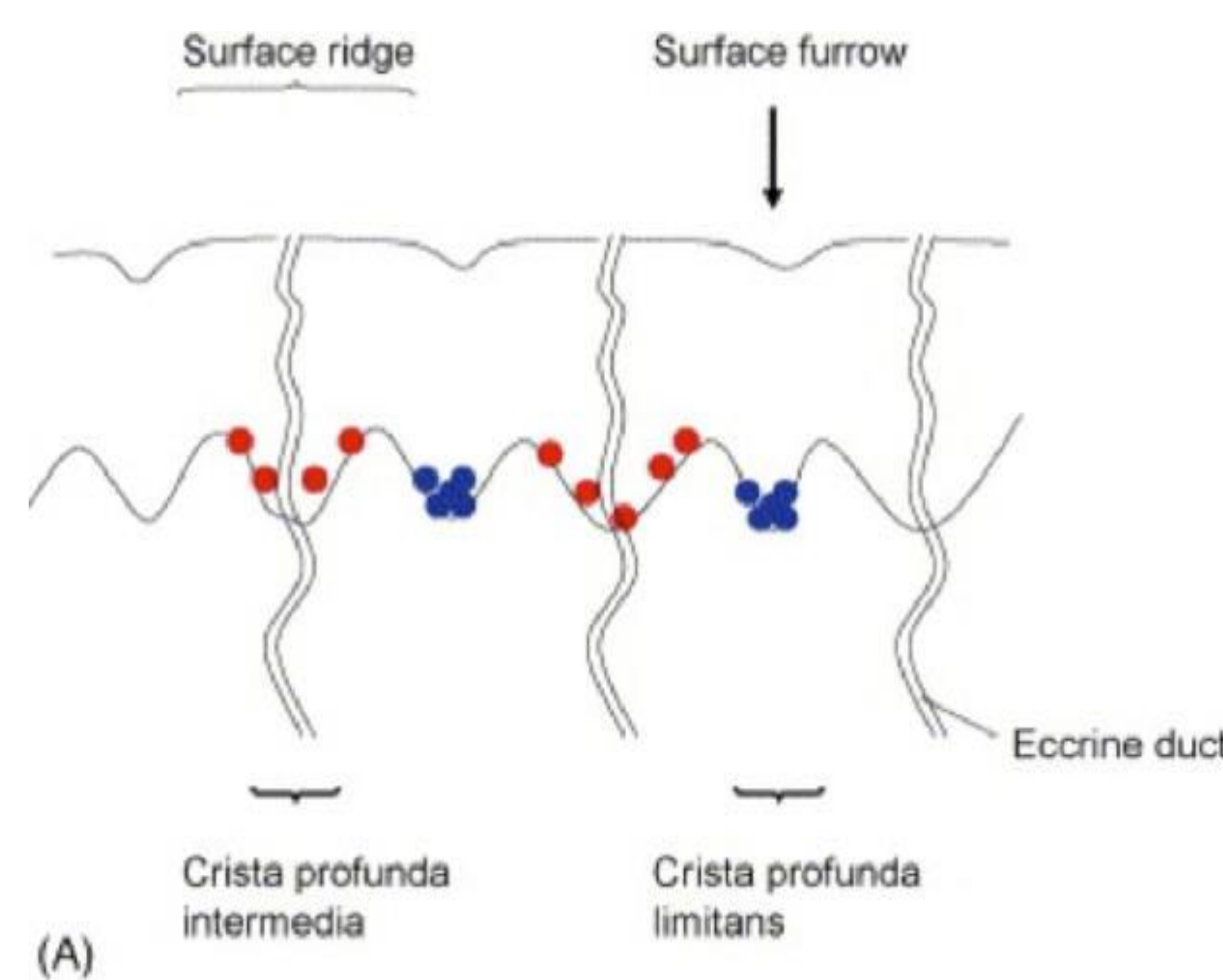


Figure : parallel furrow vs. ridge pattern¹

Conclusion

These cases illustrate **two take home messages**:

Firstly, it is important to **examine all plantar pigmented lesions with dermoscopy**. In this way, clinically inconspicuous lesions may still be recognized as melanoma.

Secondary, not every pigmented lesion with a parallel ridge pattern is a melanoma. Nevertheless, the high sensitivity of this pattern for melanoma of a parallel ridge pattern makes it necessary to **excise every plantar pigmented lesion with a parallel ridge pattern**.

References

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