Confocal microscopy of recurrent naevi and recurrent melanomas: a retrospective morphological study.


ABSTRACT

BACKGROUND: Repigmentation within a scar after different procedures (shave biopsy, partial excision, cryotherapy, laser) is a challenging diagnostic situation.

OBJECTIVES: To determine distinct dermoscopic and confocal microscopic features in a series of histopathologically proven melanocytic proliferations within a scar.

METHODS: Clinical, dermoscopic and confocal microscopic images were acquired before surgical excision in seven patients with repigmentation within a scar. The evaluation of the dermoscopic and confocal features was performed in blind to the final histopathological diagnosis that was obtained in all cases.

RESULTS: Dermoscopically, the repigmentation in recurrent naevi (three patients) was confined within the scar while it extended beyond the scar in melanomas. This clue was more evident upon reflectance confocal microscopy (RCM). Confocally, recurrent naevi failed to exhibit prominent pagetoid or lateral spread of melanocytes and atypical nests at the junction, even though some cases showed atypical cells in the junctional component. However, these were few in number and cytologically monomorphic and allowed the diagnosis of a benign neoplasm with confidence. On the other hand, melanomas arising on a scar (four patients) revealed dendritic-shaped melanocytes arranged in sheets, and pagetoid and lateral spread of dendritic cells extending beyond the scar. Those confocal aspects were well correlated with the histopathological findings.

CONCLUSIONS: The integration of clinical, dermoscopic and RCM aspects offers the possibility to discern reliably the nature in cases of repigmentation on a scar.