
ABSTRACT

BACKGROUND: Amelanotic melanoma represents a diagnostic challenge both clinically and dermoscopically. Few studies based on case series have explored the possibility of using reflectance confocal microscopy (RCM) to diagnose amelanotic melanoma. 

OBJECTIVES: The aim of our study was to validate a new confocal feature, namely hyporeflective pagetoid cells (HPC), for the diagnosis of amelanotic melanoma. Methods: A group of 20 amelanotic melanomas and a control population of non-pigmented melanocytic nevi (10), hypo/non-pigmented non-melanocytic lesions (20) and pigmented melanomas (20), imaged by RCM, was retrospectively evaluated. The presence of HPC and other diagnosis-specific confocal features was assessed and correlated with histopathology. RESULTS: Hyporeflective pagetoid cells were present, and usually abundant, in the majority of amelanotic melanomas (85%). As expected, they were also observed in Spitz nevi. On histopathology, they were correlated with pagetoid infiltration of hypomelanotic melanocytes in all melanocytic lesions. Few non-melanocytic lesions (3 SCC, 2 seborrheic keratosis and 1 BCC) showed the presence of HPC. In these cases, they corresponded to enlarged or dyskeratotic keratinocytes in histopathology.

CONCLUSIONS: The identification of hyporeflective pagetoid cells in the epidermis is a new parameter that is frequently found in amelanotic melanoma. Possible confounders are represented by atypical keratinocytes that can be present in non-melanocytic lesions. However, the whole architecture and the presence of additional diagnostic criteria should be considered in order to obtain a correct diagnosis.