Detection of desmoplastic melanoma with dermoscopy and reflectance confocal microscopy.


ABSTRACT
BACKGROUND: Desmoplastic melanoma (DM) is frequently misdiagnosed clinically and often associated with melanoma in situ (MIS).
OBJECTIVE: To improve the detection of DM using dermoscopy and reflectance confocal microscopy (RCM).
METHODS: A descriptive analysis of DM dermoscopy features and a case-control study within a melanoma population for RCM feature evaluation was performed blindly, using data obtained between 2005 and 2015. After retrospectively identifying all DM cases with RCM data over the study period (n = 16), a control group of non-DM melanoma patients with RCM data, in a ratio of at least 3:1, was selected. The control group was matched by age and primary tumour site location, divided into non-DM invasive melanomas (n = 27) and MIS (n = 27). Invasive melanomas were selected according to the melanoma subtypes associated with the DM cases. The main outcomes were the frequency of melanoma-specific features on dermoscopy for DM; and the odds ratios of RCM features to distinguish DM from MIS and/or other invasive melanomas; or MIS from the combined invasive melanoma group.
RESULTS: At least one of the 14 melanoma-specific features evaluated on dermoscopy was found in 100% of DMs (n = 15 DM with dermoscopy). Known RCM melanoma predictors were commonly found in the DMs, such as pagetoid cells (100%) and cell atypia (100%). The RCM feature of spindle cells in the superficial dermis was more common in DM compared with the entire melanoma control group (OR 3.82, 95% CI 1.01-14.90), and particularly compared to MIS (OR 5.48, 95% CI 1.11-32.36). Nucleated cells in the dermis and the RCM correlate of dermal inflammation were also significant RCM features favouring DM over MIS, as well as invasive melanoma over MIS.
CONCLUSION: Dermoscopy and RCM may be useful tools for the identification of DM. Certain RCM features may help distinguish DM from MIS and other invasive melanomas. Larger studies are warranted. © 2017 European Academy of Dermatology and Venereology. PMID:28573666 DOI:10.1111/jdv.14381