Classifying distinct basal cell carcinoma subtype by means of dermatoscopy and reflectance confocal microscopy.


ABSTRACT
BACKGROUND: The current guidelines for the management of basal cell carcinoma (BCC) suggest a different therapeutic approach according to histopathologic subtype. Although dermatoscopic and confocal criteria of BCC have been investigated, no specific studies were performed to evaluate the distinct reflectance confocal microscopy (RCM) aspects of BCC subtypes. OBJECTIVES: To define the specific dermatoscopic and confocal criteria for delineating different BCC subtypes. METHODS: Dermatoscopic and confocal images of histopathologically confirmed BCCs were retrospectively evaluated for the presence of predefined criteria. Frequencies of dermatoscopic and confocal parameters are provided. Univariate and adjusted odds ratios were calculated. Discriminant analyses were performed to define the independent confocal criteria for distinct BCC subtypes. RESULTS: Eighty-eight BCCs were included. Dermatoscopically, superficial BCCs (n=44) were primarily typified by the presence of fine telangiectasia, multiple erosions, leaf-like structures, and revealed cords connected to the epidermis and epidermal streaming upon RCM. Nodular BCCs (n=22) featured the classic dermatoscopic features and well outlined large basaloid islands upon RCM. Infiltrative BCCs (n=22) featured structureless, shiny red areas, fine telangiectasia, and arborizing vessels on dermatoscopy and dark silhouettes upon RCM. LIMITATIONS: The retrospective design. CONCLUSION: Dermatoscopy and confocal microscopy can reliably classify different BCC subtypes.