ABSTRACT

BACKGROUND: Squamous cell carcinoma (SCC) of the skin is a highly prevalent neoplasm. The management and the prognosis of this tumour are dependent on its invasiveness and its grade of differentiation. OBJECTIVES: To evaluate whether specific dermoscopic and reflectance confocal microscopy (RCM) criteria can predict the diagnosis of invasive SCC vs. in situ SCC and poorly differentiated compared with well- and moderately differentiated SCC. METHODS: Dermoscopic and RCM images of SCC were retrospectively evaluated for the presence of predefined criteria. RESULTS: Among 143 SCCs, 121 cases had a complete set of images and thus were included in the study set. The head and neck area was the most frequently involved body site (74/121; 61.1%) followed by extremities (36/121, 29.7%) and trunk (11/121, 9.1%). Seventy tumours were in situ (57.8%), while 51 were invasive (42.1%), of these 11 were poorly differentiated (21.5%), 16 were moderately differentiated (31.3%), and 24 were well differentiated (47.0%). Chi-squared analysis demonstrated that invasive SCCs were characterized by polymorphic vessels, erosion/ulceration, architectural disarrangement, speckled nucleated cells in the dermis, irregularly dilated vessels and absence of hyperkeratosis. Buttonhole vessels, white structureless areas and dotted or glomerular vessels were significantly associated with in situ lesions. Poorly differentiated SCCs were typified by red areas, erosion/ulceration and architectural disarrangement. Well- or moderately differentiated SCCs were associated with white areas and speckled nucleated cells in the epidermis. CONCLUSION: Clinical, dermoscopic and RCM images provide useful information that should be integrated in order to achieve the optimal therapeutic management for the patient. © 2017 European Academy of Dermatology and Venereology. PMID: 28696052 DOI: 10.1111/jdv.14463