Comparing in vivo reflectance confocal microscopy, dermoscopy, and histology of clear-cell acanthoma.


ABSTRACT

BACKGROUND: Clear cell acanthoma (CCA) is a rare, benign neoplasm of unknown etiology, whose dermoscopic and histological features have been previously described. Usually, CCA can be diagnosed by clinical and dermoscopic examination. In some cases, diagnosis remains uncertain, and histological examination is needed. The aim of this paper was to describe the features of reflectance confocal microscopy (RCM) in diagnosing CCA, compare them with findings on dermoscopy and histology, and evaluate their possible usefulness in CCA evaluation.

PATIENTS AND METHODS: Five lesions diagnosed clinically as CCA were imaged using dermoscopy and RCM. All lesions were surgically excised to confirm the diagnosis and compare the morphological attributes under light microscopy with in vivo imaging.

RESULTS: RCM showed well-circumscribed lesions, often edged by a hyperkeratotic collarette with parakeratosis; inflammatory cells in the spinous layer; large keratinocytes; acanthosis with papillomatosis; epidermal disarray; and dilated capillaries forming glomeruloid shapes in the upper dermis.

CONCLUSIONS: In this small study, RCM was able to identify most of the established diagnostic histological features of CCA. RCM appears to be a useful tool for in vivo diagnosis of CCA and may help avoid unnecessary biopsies.