Reflectance confocal microscopy is a useful non-invasive tool in the in vivo diagnosis of pigmented basal cell carcinoma in Asians.


ABSTRACT

BACKGROUND: The clinical differentiation between pigmented basal cell carcinoma (BCC) and other benign pigmented skin lesions can be challenging even with an additional dermoscopic evaluation, especially if the lesion is small. In vivo reflectance confocal microscopy (RCM) is an emerging, non-invasive imaging tool that allows near-microscopic evaluation of skin lesions. The features of RCM for pigmented BCC and seborrhoeic keratosis have previously been described. However, the use of RCM to differentiate between these clinically and dermoscopically challenging pigmented skin lesions among Asians has not yet been demonstrated. OBJECTIVES: We aimed to evaluate the usefulness of non-invasive RCM to differentiate between clinically and dermoscopically challenging pigmented skin lesions among Asians in a series of 11 lesions. METHODS: Nine patients with 11 clinically and dermoscopically difficult to distinguish pigmented skin lesions were evaluated by RCM to differentiate between pigmented BCC and benign lesions. In all cases, a histological confirmation of the RCM diagnosis was obtained. RESULTS: The clinical or dermoscopic characteristics were non-specific in all 10 cases. RCM detected features of pigmented BCC in nine patients and seborrhoeic keratosis in one patient. These were all confirmed by histological examination. CONCLUSIONS: This case series shows the value of non-invasive in vivo RCM imaging in the differentiation of malignant and benign pigmented lesions. Early diagnosis of small, pigmented BCC allows earlier excision with better prognosis. Future biopsies of benign lesions in cosmetic areas could also be avoided.