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Surveillance for treatment failure of lentigo maligna with dermoscopy and in vivo confocal microscopy: new descriptors.

Guitera P, Haydu LE, Menzies SW, Scolyer RA, Hong A, Fogarty GB, Gallardo F, Segura S., *Br J Dermatol.* 2014 Jan 16. doi: 10.1111/bjd.12839.

ABSTRACT

BACKGROUND: Nonsurgical treatment (radiotherapy, imiquimod) is increasingly employed for the management of lentigo maligna (LM). While the diagnosis of LM remains difficult, the detection of treatment failure is even more challenging.

OBJECTIVES: To describe the sensitivity and specificity for the diagnosis of LM of individual features and methods using dermoscopy and in vivo reflectance confocal microscopy (RCM) to aid in the detection of treatment failure of LM following nonsurgical treatment. **METHODS:** A retrospective study of dermoscopy and RCM images (blinded to the correlation with pathology) in patients with biopsy-confirmed LM who were undergoing nonsurgical treatment in two referral institutions - one in Sydney, Australia, and the other in Barcelona, Spain. Ninety-eight patients were treated nonsurgically for LM during the period 2006-2012. Thirty-one patients had abnormal dermoscopy or RCM evaluation, and had a biopsy that identified LM recurrence in 15 patients and nonmelanoma diagnoses in 16 patients (one Bowen disease, 15 solar changes). **RESULTS:** The diagnosis of treatment failure was difficult with dermoscopy, with a sensitivity of 80% and specificity of 56%, even with the interpretation of an expert. The best criterion was asymmetric hyperpigmented follicular openings, but this was present in only 47% of treatment failure LM. Isolated, very fine brown dots ('dust' appearance) correlated highly with the diagnosis of treatment failure LM (73% sensitivity and 88% specificity) and with pagetoid cells seen with RCM. The LM score, comprising six criteria, had a specificity of 94% and sensitivity of 100%.

CONCLUSIONS: These methods and descriptors should help to manage the diagnosis of treatment failure.