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Reflectance confocal microscopy and dermoscopy aid in evaluating repigmentation within or adjacent to lentigo maligna melanoma surgical scars.

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ABSTRACT

BACKGROUND: Determining whether repigmentation within or adjacent to lentigo maligna or lentigo maligna melanoma (LM/LMM) scars represents recurrence of melanoma is challenging. The use of reflectance confocal microscopy (RCM) and dermoscopy may aid in differentiating true melanoma recurrence from other causes of repigmentation. **OBJECTIVES:** To describe the characteristics of repigmentation within or adjacent to LM/LMM scars observable on RCM and dermoscopy. **METHODS:** We retrospectively analysed patients who presented with new pigmentation within or adjacent to scars from surgically treated LM/LMM between January 2014 and December 2018. Clinical and demographic characteristics and time to recurrence were recorded. RCM was used to evaluate areas of pigmentation before biopsy. If available, dermoscopic images were also evaluated. **RESULTS:** In total, 30 confocal studies in 29 patients were included in the study cohort. Twenty-one patients had biopsy-confirmed recurrent LM/LMM; the remainder had pigmented actinic keratosis (n = 4) or hyperpigmentation/solar lentigo (n = 5). RCM had sensitivity of 95.24% (95% CI, 76.18-99.88%), specificity of 77.7% (95% CI, 39.99-97.19%), positive predictive value of 90.91% (95% CI, 74.58-97.15%) and negative predictive value of 87.5% (95% CI, 50.04-98.0%). The most common dermoscopic feature observed among patients with recurrent LM/LMM was focal homogeneous or structureless areas of light-brown pigmentation (92.8% vs. 37.5% in patients with other diagnoses; P = 0.009). LM-specific dermoscopic criteria were present in only 28.5% of patients with recurrent LM/LMM. **CONCLUSIONS:** Reflectance confocal microscopy and dermoscopy are valuable tools for the comprehensive evaluation of repigmentation within or adjacent to LM scars. © 2019 European Academy of Dermatology and Venereology. PMID:31325402 DOI:10.1111/jdv.15819