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### 132 | In vivo reflectance confocal microscopy of equivocal melanocytic lesions detected by digital dermoscopy follow-up.

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#### ABSTRACT

**BACKGROUND:** Digital follow-up is a useful method for the detection of melanoma in atypical mole syndrome patients. The combination of digital follow-up (DFU) and reflectance confocal microscopy (RCM) could be useful to increase the accuracy in the classification of equivocal lesions in atypical mole syndrome patients. **OBJECTIVES:** To assess the impact of RCM analysis on sensitivity and specificity of digital follow-up in a high-risk melanoma setting. **METHODS:** Retrospective study with dermoscopy and RCM of consecutive equivocal atypical melanocytic lesions exhibiting changes in digital dermoscopy in a referral centre. **RESULTS:** Sixty-four lesions from 51 patients were included. Thirteen changing lesions (20.3%) corresponded to eight melanomas in situ and five invasive melanomas with Breslow less than 1 mm. Fifty-one lesions corresponded to melanocytic naevus with variable atypia. Total dermoscopy scores were not different between naevus and melanoma neither in the baseline (mean 5.06 and 5.24;  $P = 0.37$ ) nor in the follow-up dermoscopic control (mean 5.44 and 5.55;  $P = 0.37$ ). The only significant dermoscopic feature associated with melanoma in multivariate analysis was the presence of streaks after follow-up ( $P = 0.027$ ; OR = 3.6; CI 1.50-8.70). The confocal microscopy evaluation (by means both the Modena and Barcelona methods) showed a sensitivity and specificity for the diagnosis of melanoma of 100% and 69% respectively. Based on our experience, the combination of RCM and DFU could have avoided 35 of 51 nevi excised. **CONCLUSIONS:** Reflectance confocal microscopy evaluation of equivocal lesions detected by DFU improved the accuracy in the detection of melanoma. The combination of dermoscopy, DFU and confocal microscopy in equivocal lesions can be useful to dramatically reduce the number of excisions of benign lesions in atypical mole syndrome patients. © 2015 European Academy of Dermatology and Venereology. PMID: 25752663