**Evaluation of large clinically atypical vulvar pigmentation with RCM: atypical melanosis or early melanoma?**


**ABSTRACT**

BACKGROUND: Vulvar melanosis can occasionally be clinically challenging by mimicking an early melanoma. OBJECTIVE: To report our experience of initial evaluation and follow-up in this peculiar subset of vulvar melanosis using Reflectance Confocal Microscopy (RCM). METHODS: We retrospectively evaluated 18 consecutive cases referred for atypical vulvar pigmentation and for which melanoma was considered that underwent RCM examination and histopathological assessment. In 13 cases with available dermoscopic pictures, RCM classification was compared to dermoscopic diagnosis and in all cases the density of melanocytes was evaluated on biopsies using MelanA immunostaining.

RESULTS: Among the 18 atypical pigmented lesions, 17 vulvar melanosis and one melanoma were histologically determined. RCM concluded a benign vulvar melanosis in 10/17 cases, whereas dermoscopy did so in 3/12 cases. RCM identified the only early malignant lentiginous melanoma. In several cases of vulvar melanosis, RCM could identify foci of melanocytic hyperplasia in an otherwise benign pattern. CONCLUSIONS: In this clinically and dermoscopically challenging subset of vulvar pigmentation, RCM appears relevant for initial extensive evaluation, especially to target initial biopsy sampling, and to perform non-invasive monitoring of foci of melanocytic hyperplasia. This article is protected by copyright. All rights reserved. PMID: 29920797 DOI: 10.1111/jdv.15141