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Reflectance confocal microscopy for the diagnosis of vulvar melanoma and melanosis: preliminary results.

Cinotti E, Perrot JL, Labeille B, Adegbiidi H, Cambazard F.; Dermatol Surg. 2012 Dec;38(12):1962-7. doi: 10.1111/dsu.12009.

ABSTRACT

BACKGROUND: In the early stages, vulvar melanoma can mimic vulvar melanosis and therefore the diagnosis is often late and carries a poor prognosis. In vivo reflectance-mode confocal microscopy (RCM) is an emerging technique that allows noninvasive high-resolution imaging of the skin and mucosa, but it has not been employed in the study of genital pigmentation. **OBJECTIVE:** To analyze the characteristics of vulvar melanosis and vulvar melanoma using RCM to define the confocal aspects that allow a correct differential diagnosis. **METHODS AND MATERIALS:** Features of eight melanoses and two melanomas of the vulva were analyzed using RCM. RCM diagnosis was then compared with clinical and histologic diagnosis. **RESULTS:** Two major characteristics are associated with vulvar melanosis: papillae rimmed by bright monomorphous cells and possible presence of a few dendritic bright cells in the basal layer of the epithelium. Two major features of vulvar melanoma have been identified: atypical cells in the epithelium and loss of normal architecture of chorion papillae. **CONCLUSIONS:** Reflectance Confocal Microscopy can play a role in noninvasive differentiation between vulvar melanoma and vulvar melanosis, but further broader studies are needed to validate our observations.