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Reflectance confocal microscopy features of thin versus thick melanomas.

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ABSTRACT

BACKGROUND:In vivo reflectance confocal microscopy (RCM) plays an increasingly important role in differential diagnosis of melanoma. The aim of the study was to assess typical confocal features of thin (≤ 1 mm according to Breslow index) versus thick (> 1 mm) melanomas. **METHODS:**30 patients with histopathologically confirmed cutaneous melanoma were included in the study. Reflectance confocal microscopy was performed with VivaScope equipment prior to excision. Fifteen melanomas were thin (Breslow thickness ≤ 1 mm) and 15 were thick melanomas (Breslow thickness > 1 mm). **RESULTS:**In the RCM examination, the following features were more frequently observed in thin compared to thick melanomas: edged papillae (26.7% vs 0%, $p=0.032$) and areas with honeycomb or cobblestone pattern (33.3% vs 6.7%, $p=0.068$). Both features are present in benign melanocytic lesions, so in melanoma are good prognostic factors. The group of thick melanomas compared to the group of thin melanomas in the RCM images presented with greater frequency of roundish cells (100% vs 40%, $p=0.001$), non-edged papillae (100% vs 60%, $p=0.006$), numerous pagetoid cells (73.3% vs 33.3%, $p=0.028$), numerous atypical cells at dermal-epidermal junction (53.3% vs 20%, $p=0.058$) and epidermal disarray (93.3% vs 66.7%, $p=0.068$). **CONCLUSIONS:**Non-invasive imaging methods helps in deepening of knowledge about the evolution and biology of melanoma. The most characteristic features for thin melanomas in confocal examination are: fragments of cobblestone or honeycomb pattern and edged papillae (as good prognostic factors). The features of thick melanomas in RCM examination are: roundish cells, non-edged papillae, numerous pagetoid cells at dermal-epidermal junction and epidermal disarray. PMID: 29368860 DOI: 10.23736/S0392-0488.18.05863-7