

Title: Seborrheic keratoses mimicking melanoma unveiled by in vivo reflectance confocal microscopy

Authors:

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Background: Seborrheic keratoses (SebK) with atypical dermoscopy presentation are increasingly reported (1, 2). These lesions do not exhibit typical dermoscopy features of SebK (3) and sometimes mimic melanoma, thus complicating the differential diagnosis. Reflectance confocal microscopy (RCM) is a non-invasive tool, which allows an in vivo imaging of the skin.

Objective: To evaluate the agreement between RCM classification and histological diagnoses, and the reliability of well-known RCM criteria for SebK (4) in the identification of SebK with atypical dermoscopy presentation.

Methodology: We retrospectively analysed at RCM excised lesions presenting in dermoscopy ≥ 1 score at revisited 7-point checklist (5). The study population consisted of cases showing no melanocytic RCM findings. Lesions were investigated for distinct non-melanocytic RCM features, blinded from histopathology diagnoses. Histopathology matching was then performed before statistical analysis.

Results: The study consisted of 117 cases, classified at RCM as SebK (71 cases), dermatofibroma (DF; 18 cases), basal cell carcinoma (BCC; 13 cases), squamous cell carcinoma (SCC; 2 cases), and “non specific” (13 cases). Overall K strength of agreement at histopathology matching proved 0.76. Of the 71 cases classified at RCM with SebK, agreement was achieved in 97%.

Conclusions: RCM classification proved high agreement with histopathology for SebK with atypical dermoscopy presentations, allowing an early differential diagnosis. RCM features in this group of lesions were similar to those described for typical cases of SebK (4), and may assist clinician therapy decision making, whilst avoiding unnecessary excisions.

References:

1. Squillace L, Cappello M, Longo C, et al. Unusual dermoscopic patterns of seborrheic keratosis. *Dermatology* 2016;232:198-202.
2. Lin J, Han S, Cui L, et al. Evaluation of dermoscopic algorithm for seborrheic keratosis: a prospective study in 412 patients. *J Eur Acad Dermatol Venereol* 2014;28:957-62.
3. Argenziano G, Soyer HP, Chimenti S, et al. Dermoscopy of pigmented skin lesions: results of a consensus meeting via the Internet. *J Am Acad Dermatol* 2003;48:679-93.
4. Ahlgrimm-Siess V, Cao T, Oliviero M, et al. Seborrheic keratosis: reflectance confocal microscopy features and correlation with dermoscopy. *J Am Acad Dermatol* 2013;69:120-6.
5. Argenziano G, Catricalà C, Ardigo M, et al. Seven-point checklist of dermoscopy revisited. *Br J Dermatol* 2011;164:785-90.