

## Medical > In Vivo > Melanoma & Pigmented Lesion Research

### 2017 In vivo confocal scanning laser microscopy of common nevi with globular, homogeneous and reticular pattern in dermoscopy

Ahlgrimm-Siess V, Massone C, Fink-Puches R, Richtig E, Wolf I, Gerger A, Rainer Hofmann-Wellenhof.; *Br J Dermatol*; 01-May-2008;158(5):1000-7

#### ABSTRACT

**BACKGROUND:** A systematic examination and comparison of confocal scanning laser microscopy (CSLM) features of benign naevi showing different dermoscopic patterns has never been performed.

**OBJECTIVES:** Systematically to assess CSLM features of dermoscopically benign reticular, globular and homogeneous naevi and to correlate CSLM findings with dermoscopy and histopathology.

**METHODS:** CSLM was performed on 30 naevi in 29 patients including 10 reticular, 10 globular and 10 homogeneous naevi showing a uniform pigmentation pattern with dermoscopy. Cytomorphological and architectural features of each naevus were assessed and distinct characteristics for each group of naevi were defined. CSLM features were correlated with the histopathological findings and their applicability for the diagnosis of naevi with different dermoscopic patterns was assessed by two blinded observers.

**RESULTS:** A correct diagnosis was made in 26 and 28 of 30 cases, respectively, by two blinded observers using previously defined CSLM features. Well-defined melanocytic caps, well-defined edged papillae and black papillae concurrently with the absence of white papillae were found in all reticular naevi (10 of 10). Numerous, large junctional/dermal melanocytic nests (10 of 10), ill-defined edged papillae (eight of 10) and white papillae (nine of 10) were found in globular naevi. Homogeneous naevi showed an intermediate pattern between reticular and globular naevi: ill-defined edged papillae (10 of 10), black and white papillae within the same naevus (eight of 10) and junctional/dermal melanocytic nests (three of 10) were seen.

**CONCLUSIONS:** Different dermoscopic patterns of benign naevi are reflected in different architectural features in CSLM. As benign naevi show a regular architecture of monomorphous melanocytes in contrast to melanomas, similar dermoscopic features of naevi and early melanomas may be differentiated by CSLM.