Medical > In Vivo > Melanoma & Pigmented Lesion Research

59 | Reinterpreting dermoscopic pigment network with Reflectance Confocal Microscopy for identification of Melanoma specific features.

De Pace B, Farnetani F, Losi A, Ciardo S, De Carvalho N, Cesinaro AM, Reggiani Bonetti L, Chester J, Kaleci S, Del Duca E, Nisticò SP, Longo C, Pellacani G. J Eur Acad Dermatol Venereol. 2017 Nov 8. doi: 10.1111/jdv.14675.

ABSTRACT

ACKGROUND:Pigment network is an important dermoscopic features for melanocytic lesions but alterations in grid line thickness are also observed in melanomas. OBJECTIVE:To investigate features of thick, thin and mixed pigment networks at dermoscopy and their respective features at ReflectanceConfocal Microscopy (RCM) for differential diagnosis, correlated with histology METHODS: All melanocytic lesions with histological diagnosis, evaluated between January 2010 - May 2014, were enrolled and classified according to dermoscopy evaluation of the pigment network; thin, thick and mixed. RESULTS:Thin network in melanoma was characterized by a honeycombed pattern ($p<0.001$), dendritic cells ($p<0.001$), atypical ringed pattern ($p=0.035$) and structureless area ($p=0.012$), whereas round cells ($p<0.001$), dendritic cells ($p<0.001$) and atypical meshwork pattern (<0.001) characterized thick network in melanoma. Mixed network type in melanoma shared honeycombed ($p=0.049$) and typical ringed patterns ($p=0.045$) in the thin area and round cells ($p<0.001$) and atypical meshwork pattern ($p<0.001$) in the thick area. Thin network in nevi was characterized by cobblestone ($p<0.001$) and typical ringed patterns ($p=0.035$), whereas thick network in nevi showed a typical meshwork pattern ($p<0.001$). Mixed nevi shared the same features and patterns, but more frequently with inflammatory infiltrate ($p=0.047$). CONCLUSION:Differential diagnosis between melanocytic lesions (nevi or melanoma) in thin, thick and mixed pigment networks observed at dermoscopy can be assisted by RCM to improve diagnostic accuracy.