ABSTRACT
BACKGROUND: Differentiating Spitz naevi and melanomas can be difficult both clinically and dermoscopically. Previous studies reported the potential role of in vivo reflectance confocal microscopy (RCM) in increasing diagnostic accuracy. OBJECTIVES: To define RCM criteria that can differentiate "false twins", namely SNs and MMs sharing similar dermoscopic appearance. METHODS: Lesions histopathologically-diagnosed as Spitz naevi or melanomas were retrospectively retrieved and they been selected to cover all dermoscopy types and put in "couple". Lesions were classified in three main dermoscopic categories: globular and starburst pattern; spitzoid with dotted vessels; multicomponent or aspecific pattern. RESULTS: RCM findings revealed that striking cell pleomorphism within epidermis, widespread atypical cells at the dermo-epidermal junction and marked pleomorphism within nests were significantly associated with the diagnosis of MM while spindled cell and peripheral clefting were exclusively found and pathognomonic of SNs. Furthermore, the analysis of dermoscopic subgroup highlight the importance of striking pleomorphism and spindled cells as clues to differentiate "false twins" with globular or starburst pattern. CONCLUSIONS: The current study highlights the role of RCM in discriminating "false twins" of Spitz naevi and melanomas for lesions showing starburst and globular patterns upon dermoscopy whereas RCM is not useful in the other dermoscopic subgroups. This article is protected by copyright. All rights reserved.