ABSTRACT
BACKGROUND: Vitiligo is an acquired pigmentary disorder. In vivo reflectance confocal microscopy (RCM) reproducible imaging technique has already been reported to be useful in the diagnosis of other skin diseases. OBJECTIVE: To define RCM features of vitiligo on different clinical stages. MATERIALS AND METHODS: A total of 125 patients with a clinical diagnosis of vitiligo were included in this study. After informed consent, lesional skins of those vitiligo patients were characterized by using RCM. Five patients with inflammatory cell infiltration observed at the edge of skin lesions and another 5 patients without inflammatory cell infiltration were selected. Biopsies were performed at same sites of the RCM examination areas for histological and immune-histological analysis. RESULTS: In the active stage of vitiligo, the RCM examination revealed that the bright dermal papillary rings presented at the dermoepidermal junction level in normal skin lost their integrity or totally disappeared, border between vitiligo lesion and normal skin became unclear, and highly refractile cells that referred to infiltrated inflammatory cells could be seen within the papillary dermis at the edge of the lesions. In the stable stage of vitiligo, the RCM showed a complete loss of melanin in lesional skin and a clear border between lesional and normal skin. CONCLUSION: A simple clinical examination with RCM may reliably and efficiently allow evaluation of the stability status of vitiligo lesions.