

Dermoscopy, reflectance confocal microscopy and optical coherence tomography for the diagnosis of lichen simplex chronicus localized on the scalp

Victor Desmond Mandel,¹ Giovanni Pellacani,¹ Bianca Maria Piraccini,² Michela Starace^{1,2}

¹*Dermatology Unit; Department of Surgical, Medical, Dental and Morphological Sciences with Interest Transplant, Oncological and Regenerative Medicine; University of Modena and Reggio Emilia, Modena, Italy.*

²*Division of Dermatology, Department of Experimental, Diagnostic and Specialty Medicine, University of Bologna, Bologna, Italy.*

Introduction & Objectives: Lichen simplex chronicus (LSC) is characterized by lichenified plaques that occur as a result of constant scratching or rubbing of the skin. The scalp is one of the most common locations involved by this chronic condition. No data on reflectance confocal microscopy (RCM) and optical coherence tomography (OCT) of LSC on the scalp exist, while the useful of dermoscopy for the diagnosis of this disease was described in three cases.

The aim of this study was to evaluate features of LSC at dermoscopy, reflectance confocal microscopy (RCM) and optical coherence tomography (OCT) in order to provide a rapid non-invasive bed-side diagnosis.

Materials & Methods: A clinical assessment, digital dermatoscope examination, RCM and OCT were performed in two patients with LSC of scalp. The diagnosis of LSC was confirmed histologically.

Results: We show that dermoscopy, RCM and OCT can be useful tools for the diagnosis of LSC. We also correlate the dermatoscopic, RCM and OCT signs with the pathological features observed in transversely sectioned scalp biopsies from affected scalp of these two patients.

Conclusions: Dermoscopy, RCM and OCT provide useful information for a rapid diagnosis of LSC of scalp and for the identification of biopsy site.