



DERMOSCOPY AND SKIN IMAGING

## VIDEO THERMOGRAPHY AS AN OBJECTIVE METHOD FOR EVALUATING THE RESPONSE TO REGENERATIVE THERAPY IN GENITAL LICHEN SCLEROSUS: PRELIMINARY STUDY

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**Introduction:** Recently, a new regenerative approach based on autologous fat graft and/or platelet-rich-plasma (PRP) has been adopted for Genital Lichen Sclerosus (GLS). Clinical improvement can be subjective and carried out by means pain assessment tests, but it needs an objective economic, non-invasive, and repeatable instrumental assessment. High definition video thermography (VTG) is a method of imaging based on the picking up the infrared radiations emitted by the skin surface. Any lesion of the skin that alters its physical structure induces a modification of the proper thermal emissivity of that area.

**Objective:** To examine, by VTG, the vulvar and ano-genital regions of women showing clinical lesions diagnosed by biopsy to be L. S. manifestations, before and after regenerative therapies to evaluate the diagnostic accuracy of VTG compared to biopsy, and to explore the validity of this method in evaluating the response to therapy.

**Material and methods:** 8 female patients with clinically diagnosed GLS, were enrolled from 1 June 2017 to 30 December 2017 and subjected to skin biopsy to confirm the diagnosis. After compilation of the Caraceni questionnaire they were evaluated using VTG before and after regenerative treatment with PRP, instrumental evaluations will be performed at 7, 30, 90 days after the treatment.

**Results:** VTG showed the presence in an homogeneous domain of cold spots areas in case of sclerosis and reduced vascular supply. These areas were found to be corresponding to those clinically evident, but in some cases even more extensive. After treatment was observed a reduction in amplitude of these areas and an increase in the thermal gradient ( $^{\circ}$  C) in 62.5% and a normalization of thermographic values in 37.5%.





Conclusions: Thermographic assessment could help to improve Lichen Diagnosis, to select patients for regenerative therapy and through follow-up to document their effectiveness.

