



PSORIASIS

## EVALUATION OF TRANS-EPIDERMAL-WATER-LOSS IN PSORIATIC PATIENTS TREATED WITH BIOLOGIC OR TRADITIONAL SYSTEMIC DRUGS

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**Introduction:** As previously shown psoriatic skin has a defective differentiation program that leads to an abnormal permeability barrier. We also know that transepidermal water loss (TEWL) is greater in lesional than in non-lesional skin of psoriatic patients.

**Objective:** The aim of our study was to evaluate the variation of TEWL in psoriatic and non-psoriatic skin of patients undergoing treatment with biologic or conventional drugs.

**Materials and Methods:** Ten psoriatic patients were enrolled and divided in two arms: 5 patients were treated with systemic traditional therapy and 5 patients were treated with biologics. TEWL was assessed on psoriatic and non-psoriatic skin of patients in both arms before starting therapy, after 12 and 24 weeks of treatment. TEWL was also estimated in 35 healthy subjects.

**Results:** At baseline, we observed average TEWL values more elevated in psoriatic lesional skin than in non lesional psoriatic skin and healthy skin (19; 12; 8.8). After 24 weeks therapy, we assisted to a significant reduction of average TEWL values in psoriatic lesional skin (14.6), while non lesional psoriatic skin showed higher TEWL values compared to baseline (15.9). The sub-groups analysis showed that patients treated with biologics, unlike the traditional treatment group, had a significant change in average TEWL values directly related to the variation of PASI score and in line with the globally observed TEWL values.

**Conclusions:** We confirmed data in the literature on the difference in TEWL values between lesional and non-lesional psoriatic skin. We have shown an improvement in the barrier function of psoriatic lesional skin after biologic therapy. On the other hand in non lesional psoriatic skin, TEWL values are increased, reaching values similar to lesional skin. For a better management of psoriatic patients, it would be reasonable to associate emollients together with systemic treatment.

