



ELESTAB® HP 100

Anti-dandruff and anti-desquamation efficacy of hair scalp

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Dandruff (Pityriasis capitis) is a sub-clinical inflammatory scalp disorder resulting in a disruption of cohesion between the corneocytes. This leads to an excessive flaking of dead skin cells on the scalp.

In a normal state, epidermal cells are renewed every 28 days and the scalp sheds dead cells in an invisible way.

In contrary, in the case of people suffering from dandruff, the epidermal cell turn over is unusually fast, about 2 weeks, only. Dead skin cells are shed in large clumps. Dandruff scales are dry, white or grayish, appearing as unsightly patches, especially at the top of the head.

The etiology of dandruff is multifactorial, but it is generally accepted that the most common cause is probably the fungus *Malassezia furfur* (previously known as *Pityrosporum ovale*). This fungus is found naturally on the skin surface but it is more present on skin areas with many sebaceous glands, such as the scalp.

Other factors can influence the state of dandruff such as: hormonal imbalances, season (most severe during the winter), use of alkaline soaps, infrequent shampoo of hair or inadequate rinsing, excessive perspiration, stress, anxiety and tension.

The use of appropriate hygienic and care products can greatly improve dandruff states.

AIM

The aim of this test is to demonstrate the anti-dandruff and anti-desquamation effect of a shampoo containing 0.1% ELESTAB® HP 100 in comparison to a shampoo with 1% zinc pyrithione.

PROTOCOL

Study run in double blind on 2 groups, of 17 and 15 healthy volunteers respectively, with dandruff prone scalps and oily hair.

Treatment:

- Week - 2 to Week 0(W-2 – W0): Daily application of a neutral shampoo for 2 weeks on wet hair under normal conditions of use. Wash-out period.

- Week 0 to Week 4(W0 – W4): Daily application of shampoo with 0.1% ELESTAB® HP 100 or 1% zinc pyrithione for 4 weeks on wet hair under normal conditions of use.

- Week 4 to Week 6(W4 – W6): Daily application of a neutral shampoo for 2 weeks on wet hair under normal conditions of use. Remanence period.

Evaluation:

Evaluation of the anti-dandruff efficacy by clinical scoring of dandruff and desquamation states on 3 areas of the scalp (frontal, parietal and occipital) by the specialist.

Subjective appraisal of product efficacy by the volunteers.

Macrophotography for 3 volunteers per group at W0, W1, W2, W4 and W6.

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RESULTS

ANTI-DANDRUFF EFFECT: SCALES IN HAIR

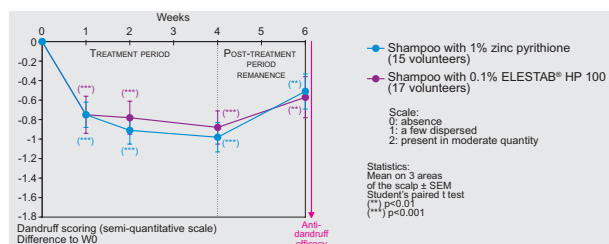


Fig. 2 – Clinical dandruff scoring.

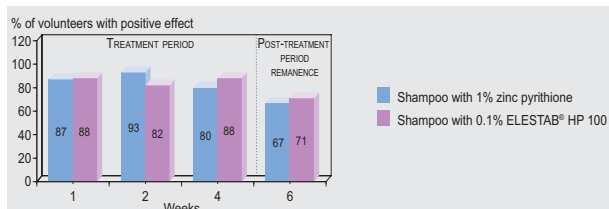


Fig. 3 – Clinical dandruff scoring: % of volunteers with positive effect.

The shampoo with 0.1% ELESTAB® HP 100 has a significant anti-dandruff effect since 1 week treatment increasing until 4 week treatment.

The anti-dandruff effect of ELESTAB® HP 100 is equivalent to the benchmark.

A slightly better remanent effect has been demonstrated with the shampoo containing 0.1% ELESTAB® HP 100 compared to the shampoo with 1% zinc pyrithione.

ANTI-DESQUAMATION EFFECT: SCALES ON SCALP

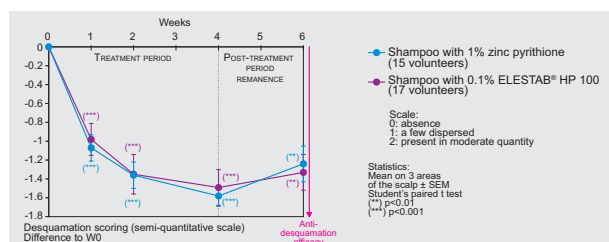


Fig. 4 – Clinical desquamation scoring.

MACROPHOTOGRAPHS



Fig. 7 – Shampoo with 0.1% ELESTAB® HP 100. Numeric macrophotographs

The strong antimicrobial activity of ELESTAB® HP 100 on *Malassezia furfur* (*Pityrosporum ovale*) has been confirmed by a good and significant anti-dandruff effect, still perceivable by the end user two weeks after the end of the treatment.

For more than **80% of the volunteers** the shampoo with 0.1% ELESTAB® HP 100 has a significant anti-dandruff efficacy during the treatment and for more than **70%** a noticeable remanent effect.

ELESTAB® HP 100 is recommended for specific hair care focusing an activity on dandruff prone scalps.

Due to its cationic behaviour, ELESTAB® HP 100 is particularly suitable for «rinse-off» treatments.

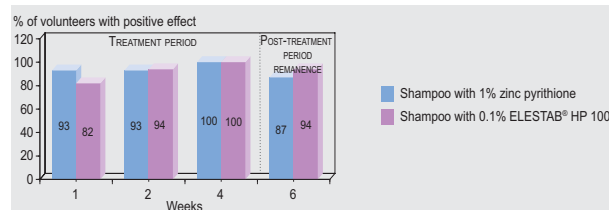


Fig. 5 – Clinical desquamation scoring: % of volunteers with positive effect.

The shampoo with 0.1% ELESTAB® HP 100 has a significant anti-desquamation effect since 1 week treatment and the effect has increased until 4 week treatment.

The anti-desquamation effect of ELESTAB® HP 100 is equivalent to the benchmark.

2 weeks after the last treatment, a better remanent effect has been demonstrated with the shampoo containing 0.1% ELESTAB® HP 100 compared to the shampoo with 1% zinc pyrithione.

SUBJECTIVE EVALUATION

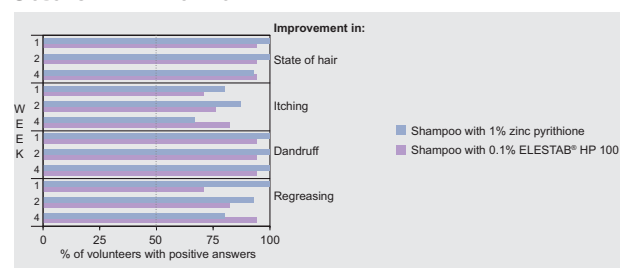


Fig. 6 – Volunteers' appraisal after 1, 2 and 4 week treatment.

The shampoo with ELESTAB HP® 100 has been appreciated by more than **70% of volunteers** for its efficacy: improvement of hair scalp state characterized by a decrease of dandruff, itching and regreasing.