



INFLAMMATORY SKIN DISEASES (OTHER THAN ATOPIC DERMATITIS & PSORIASIS)

## EXPERIMENTAL, PROSPECTIVE, OPEN, MONOCENTER, CLINICAL TRIAL FOR THE EVALUATION OF A NON STEROIDAL CREAM TO IMPROVE THE CONDITION OF SEBORRHEIC DERMATITIS TOPICALLY APPLIED ON FACE AND CHEST IN PATIENT

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**Introduction.** The pathogenesis of Seborrheic dermatitis (SD) is multifactorial, and traditional treatments may not target all aspects of them.

**Objective** of this study was to evaluate the short-term efficacy of a novel non steroidal cream (NSC) containing Zinc PCA, Piroctone Olamine, Hydroxyphenyl Propamidobenzoic Acid, Biosaccharide Gum-2 and Stearyl Glycyrhethinate in patients with face and trunk SD.

**Materials and Methods.** Twelve patients affected by SD and 10 healthy controls were recruited (T0); SD patients applied the cream twice a day and performed follow-up visits after 7 (T1) and 14 (T2) days of treatment. To assess the efficacy of the NSC, the Investigator's Global Assessment Score (IGA), evaluating erythema, scaling and induration, has been used at T0, T1 and at T2. Itch was measured by subjects completing Visual Analogue Scale (VAS) at T0, T1 and T2. RNA analysis was executed on skin biopsies at T0 and T1. To assess anti-inflammatory and antimicrobial effects, gene expression of IL-1 $\alpha$ , IL-1 $\beta$ , IL-6, IL-8, TNF- $\alpha$ , HBD2 and HBD3 was assessed. To demonstrate effects on pruritus, gene expression of cathepsin S and L-histidine decarboxylase, enzyme responsible for histamine formation, was examined. In parallel, skin scales (50-100 mg) were collected and cultured to assess the Malassezia growth at T0, T1 and T2.

Our results proved the pleiotropic action of this NSC, showing its anti-inflammatory, antipruritic and anti-fungal properties. IGA score and VAS were already reduced after 1 week of treatment. This topical product is able to reduce the gene expression of pro-inflammatory cytokines, including IL-1 $\alpha$ , IL-1 $\beta$ , IL-6, IL-8, TNF- $\alpha$ , HBD2 and HBD3 after 1 week of therapy. Furthermore, a decrease in Malassezia growth at T1 as well as T2 was





depicted.

In conclusion, this novel NSC represents a rapid and efficacious option with a global approach to relief SD symptoms from the first week of application.

