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Dear Colleagues

We all frequently receive patients with seborrheic dermatitis of the scalp (SSD). SSD is a chronic, inflammatory disorder and is characterized by episodes of erythematous, flaky lesions, which can vary from mild scales to dense, diffuse, adherent flakes and prominent pruritus, and may evolve with periods of flares and remissions [1].

Increased colonisation with lipophilic yeasts of *Malassezia* spp., as well as genetic, environmental and general health factors, the so-called exposome, has been suggested to lead to an alteration of sebaceous gland activity and sebum composition, epidermal barrier dysfunction, inflammation and dysbiosis [2-6].

Dysbiosis of the scalp microbiota is not only caused by an increased presence of *Malassezia* spp. but also by a disequilibrium between the two dominant bacteria, *Staphylococcus* spp. and *Cutibacterium* spp. [7-11]. Thus, SSD is not only associated with clinical signs and symptoms but also with an unbalanced scalp microbiota and a disturbed skin barrier [9-12]. In addition to the physical impact, SSD impacts the patient's quality of life [13, 14]. Due to its chronicity, SSD requires permanent care, and compliance to treatment is a major issue.

Today, topical medicated therapies remain the mainstay of SSD treatment. The two main classes are corticosteroid-based treatments and antifungal agents [15, 16]. While shampoo formulations have been developed for both compounds in order to ease their application on the scalp and to improve treatment compliance, they may also cause cutaneous adverse effects when topical corticosteroids are used [1, 17, 18]. For these reasons, this class is recommended in the treatment of more severe forms of SSD and its use is limited in duration. However, with SSD being a chronic condition, once treatment with corticosteroids is discontinued, it tends to relapse, requiring a further treatment course after a recovery period [6, 13, 14].

Selenium disulfide (SeS₂) is a recognized ingredient to manage SSD. It reduces flakes, itching, irritation, and redness of the scalp [19-21].

Recently, a non-medicated SeS₂-based over-the-counter (OTC) shampoo has proven its benefit in the treatment of dandruff and in mild-to-moderate SD after an initial treatment with ketoconazole, providing an excellent clinical maintenance outcome of SSD signs and symptoms [22]. The present supplement provides an update on research data regarding microbiota of the scalp, as well as the benefit of a SeS₂-based shampoo in rebalancing the natural skin microbiota and restoring the natural skin barrier in subjects with SSD.

The data presented in this supplement will be highly valuable for the management of SSD in real clinical practice.

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