

ACTASDermo-Sifiliográficas

Full English text available at www.actasdermo.org



RESIDENTS FORUM

[Translated article] RF - Safety and Efficacy of Isotretinoin for Moderate-to-Severe Seborrheic Dermatitis



FR – Isotretinoína como tratamiento de la dermatitis seborreica moderada-grave

M. Luque-Luna*, J. Gil-Lianes, R. Pigem

Servicio de Dermatología del Hospital Clínic de Barcelona, Universitat de Barcelona, Barcelona, Spain

KEYWORDS

Seborrheic dermatitis; Isotretinoin; Itraconazole

PALABRAS CLAVE

Dermatitis seborreica; Isotretinoína; Itraconazol

Seborrheic dermatitis (SD) is a chronic, recurrent, and common inflammatory skin disease. The pathogenesis of SD may be explained by the colonization of *Malassezia* spp., the presence of lipids on the skin surface, and individual susceptibility. It has a prevalence of 3% and is more common in men. In clinical practice, cases of moderate-to-severe SD have been reported that do not respond, or do so incompletely, to a wide variety of treatments: oral or topical antifungals, topical corticosteroids, topical retinoids, or

DOI of original article: https://doi.org/10.1016/j.ad.2023.09.030

* Corresponding author.

E-mail address: mar.luqueluna@gmail.com (M. Luque-Luna).

soap containing salicylic acid. ¹⁻⁴ The recurrent nature of this condition poses a psychological burden for patients. ¹ Sometimes, isotretinoin is used to treat it, and a good response has been described, which could be explained by the inhibition of cytokine expression, as well as interleukins produced by both keratinocytes and sebocytes, and the inactivation of toll-like receptor type 2. ^{1,3,5} At the same time, by reducing the differentiation and proliferation of sebocytes and decreasing sebum production, a reduction in the size of the sebaceous gland is achieved. ^{1,3,5}

To synthesize the most relevant studies evaluating the response of SD to isotretinoin, King et al.³ conducted a systematic review in which they selected 7 studies including a total of 229 patients. A total of 52% of the patients were men, and the study population had a mean age of 28 years. The included studies evaluated low doses of isotretinoin (\leq 0.5 mg/kg/day), with a mean of 9.2 mg/day over 4 months. There was an 81% improvement in pruritus (95%CI, 68.5–95.2) in patients on isotretinoin vs 61% (95%CI, 53–76.2) in patients on itraconazole (p=0.003). A total of 96% of the patients showed an improvement in SD with isotretinoin, with 45% achieving a complete response. The 3-month rate of recurrence after discontinuing the drug was 11%.

Yanfei et al. conducted a retrospective study (n = 48) that included patients with moderate and severe SD treated with isotretinoin from January 2019 to December 2020. This

study adds 2 interesting aspects, such as the comparison of 2 different doses of the drug (26 patients received 20 mg of isotretinoin/day and 22, $10\,\text{mg}/\text{day}$ of the same drug) and the objective assessment of changes in patients using the Seborrheic Dermatitis Symptom Scale (SDSS), which evaluates the main items of this condition: erythema, scaling, and pruritus—rated from 0 up to 5—with 0 being asymptomatic and 5 very severe. The SDSS was assessed before treatment and 2 months into therapy. The absolute SDSS values before and after treatment were 12.91 ± 1.12 vs 2.28 ± 0.37 . There were no significant differences between taking $10\,\text{mg}$ or $20\,\text{mg}$ per day. No serious adverse events (AEs) were observed, with cheilitis being the most frequent.

Both studies agree on the areas most affected—trunk, face, and scalp—and that no serious AEs occurred, with cheilitis being the most common AE.

The retrospective design of the studies and the short follow-up of patients are significant limitations in the above-mentioned studies, preventing a clear understanding of the long-term relapse frequency.

Although it is not currently listed as an indication on the drug label, low-dose isotretinoin appears to be an effective, tolerable, and safe treatment for patients with moderate and severe SD.

However, we consider it necessary to conduct prospective, randomized, double-blind, placebo-controlled clinical trials with long follow-ups to evaluate the response of SD to isotretinoin, assessing different doses across different populations.

References

- Yanfei Z, Xiaoying N, Dingwei Z, Wei W, Jianwen R. Efficacy and safety of oral isotretinoin in the treatment of moderate to severe seborrheic dermatitis: a retrospective study. Int J Dermatol. 2023;62:759-63.
- Gupta AK, Bluhm R. Seborrheic dermatitis. J Eur Acad Dermatol Venereol. 2004;18:13–26.
- King A, Tan MG, Kirshen C, Tolkachjov SN. Isotretinoin for the management of moderate-to-severe seborrheic dermatitis: a systematic review. J Am Acad Dermatol. 2023. S0190-9622(23)01351-8.
- 4. Buechner SA. Multicenter, double-blind, parallel group study investigating the non-inferiority of efficacy and safety of a 2% miconazole nitrate shampoo in comparison with a 2% ketoconazole shampoo in the treatment of seborrhoeic dermatitis of the scalp. J Dermatolog Treat. 2014;25:226–31.
- Nelson AM, Zhao W, Gilliland KL, Zaenglein AL, Liu W, Thiboutot DM. Isotretinoin temporally regulates distinct sets of genes in patient skin. J Invest Dermatol. 2009;129:1038–42.