

Mesotherapy with dutasteride for androgenetic alopecia: a concise review of the literature

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Androgenetic alopecia is the most common form of alopecia. Its therapeutic approach is broad both in terms of active agents and routes of administration. Anti-androgens have been shown to be highly effective in both men and women.

Mesotherapy with dutasteride, despite being an off-label technique, can be an effective alternative in cases of fear or refusal of, or poor tolerance to systemic treatment with anti-androgens. We present a review of the current evidence published to date on mesotherapy with dutasteride.

Androgenetic alopecia (AGA) is the most common form of alopecia. Dihydrotestosterone (DHT) plays a major role in its pathogenesis as it causes hair miniaturization and shortening of the anagen phase [1].

Mesotherapy consists of a local drug injection at an adequate skin depth to enhance the therapeutic effect while minimizing systemic effects [2]. Mesotherapy with dutasteride reduces DHT levels in the scalp through the inhibition of 5- α -reductase types I and II [3].

Three placebo-controlled studies were published between 2009 and 2013. Abdallah *et al.* and Sobhy *et al.* showed the effectiveness of dutasteride 0.005% in men with AGA based on independent observer assessment (IOA) [4, 5], while Mofteh *et al.* proved the efficacy of dutasteride 0.05% in women with AGA [6]. Later in 2017, a pilot study by Saceda-Corralo *et al.* with dutasteride 0.01% showed improvement in IOA in all patients evaluated [7]. Regarding the combination with minoxidil, Merino-de-Paz *et al.*, in 2018, achieved good outcomes in men and women with AGA with dutasteride 0.05% + minoxidil 2% [8], and in 2022, Villarreal-Villarreal *et al.* published the superiority of dutasteride 0.01% + oral minoxidil versus oral minoxidil monotherapy in the vertex area, but not in the frontal area [9]. Finally, Saceda-Corralo *et al.* presented a multicentre retrospective study with dutasteride 0.01% mesotherapy administered every three months in which more than 80% of the patients (men and women) clinically improved with

no severe adverse effects [10]. The best technique for administration seems to be 0.05-0.1-mL injections at a depth of 4 mm, using fine needles (30G) and small syringes (1 mL) [11].

In summary, mesotherapy with dutasteride should be considered a safe and effective alternative for AGA, especially for patients who refuse oral anti-androgens or who have relative contraindications for them. ■

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