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Effectiveness and safety of low-dose oral minoxidil in male androgenetic alopecia



To the Editor: Low-dose oral minoxidil (OM) has been successfully used in female hair loss (0.25-1.25 mg daily),¹⁻³ but there are scarce reports in male androgenetic alopecia (MAA).^{1,4} The objective of our study was to evaluate the effectiveness and safety of low-dose OM (2.5-5 mg daily) in men with MAA.

We retrospectively reviewed male patients who had MAA diagnosed clinically and by trichoscopy and were receiving OM in monotherapy or as an additional therapy. Of the patients receiving other concomitant therapies, only those without treatment modifications in the 12 months before minoxidil therapy were included. OM, 2.5 or 5 mg daily, was given for a minimum of 6 months. This dosage was based on a previous report by Lueangarun et al.⁴ Therapeutic response was assessed by comparison of pretreatment and post-treatment clinical images by 3 independent dermatologists with expertise in hair disorders (D.S.C., R.R.B., and S.V.G.), using a 4-point scale (worsening, stabilization, mild improvement, or marked improvement). An improvement of 1 grade or more on the Norwood-Hamilton scale was defined as marked improvement.

A total of 41 men with a mean age of 33.3 years (range, 20-55) were included. They received OM at a daily dose of 2.5 mg (10 patients) or 5 mg

(31 patients). In all, 25 patients (61%) had previously undergone other therapies for a mean of 18 months (range, 12-48): oral dutasteride (18 patients), mesotherapy with dutasteride (9 patients), oral finasteride (3 patients), topical minoxidil (2 patients), and topical finasteride (1 patient). A total of 16 patients (39%) received OM as monotherapy (Table I). Clinical improvement was observed in 37 patients (90.2%), with 11 of these patients (26.8%) presenting a marked improvement. Four patients (9.8%) showed stabilization, and none of them worsened. All those in the subgroup of 16 patients receiving OM as monotherapy presented clinical improvement, with 6 patients (37.5%) showing marked improvement (Fig 1, A and B). Adverse effects were detected in 12 patients (29.3%): hypertrichosis in 10 patients (24.3%), lower limb edema in 2 patients (4.8%), and shedding in 1 patient (2.4%). All of the adverse effects were mild and well tolerated. Only 1 patient discontinued the treatment, because of pedal edema. These adverse effects appeared with the dose of 5 mg daily, except in 2 patients with slight hypertrichosis and 1 patient with shedding (2.5 mg daily).

OM, 0.25-1.25 mg daily, has been used for the treatment of female androgenetic alopecia, traction alopecia, and telogen effluvium, showing improvement in 61 to 86% of patients and a good safety profile.¹⁻³ There are few articles describing the effectiveness of OM in MAA.^{1,4} A previous study reported improvement in 30 men (100%) with MAA who were taking OM, 5 mg, with a higher rate of adverse events than in our cohort: 93% of patients had hypertrichosis, 10% had edema, and 10% had an electrocardiogram alteration.⁴

The study's retrospective design and low number of patients are limitations.

In conclusion, OM at a dose of 5 mg daily was effective and presented an acceptable safety profile in our cohort of male patients with MAA. The optimum dose needs to be delineated in future controlled studies.

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Table I. Clinical and epidemiologic data of the subgroup of 16 patients treated with oral minoxidil in monotherapy

Patient	Age	Alopecia grade*	Previous treatment and cause of withdrawal	Dosage of oral minoxidil, mg	Treatment duration, mo	Clinical response [†]	Adverse effects	Withdrawal due to adverse effects
1	23	4	None	5	8	3	Pedal edema	Yes
2	33	4	None	5	6	3	Hypertrichosis	No
3	42	4	None	5	6	2	Hypertrichosis	No
4	27	4	Oral finasteride for 3 mo with sexual adverse effects	5	6	2	None	
5	46	3	Topical minoxidil with poor compliance	5	8	3	Hypertrichosis	No
6	28	3	Topical minoxidil with poor compliance	5	8	3	None	
7	32	3	None	5	8	2	Hypertrichosis	No
8	46	3	None	5	6	2	None	
9	39	3	None	5	6	2	None	
10	20	2	None	5	6	3	None	
11	21	2	None	5	12	2	None	
12	36	2	None	5	6	2	None	
13	30	1	None	5	8	3	None	
14	37	1	None	5	6	2	Hypertrichosis	No
15	27	1	None	5	11	2	None	
16	23	1	None	2.5	6	2	None	

*Alopecia grade according to the Norwood-Hamilton scale (I-VII).

[†]Clinical response according to a 4-point scale: 0, worsening; 1, stabilization; 2, mild improvement; and 3, marked improvement. An improvement of 1 grade or more on the Norwood-Hamilton scale was defined as marked improvement.

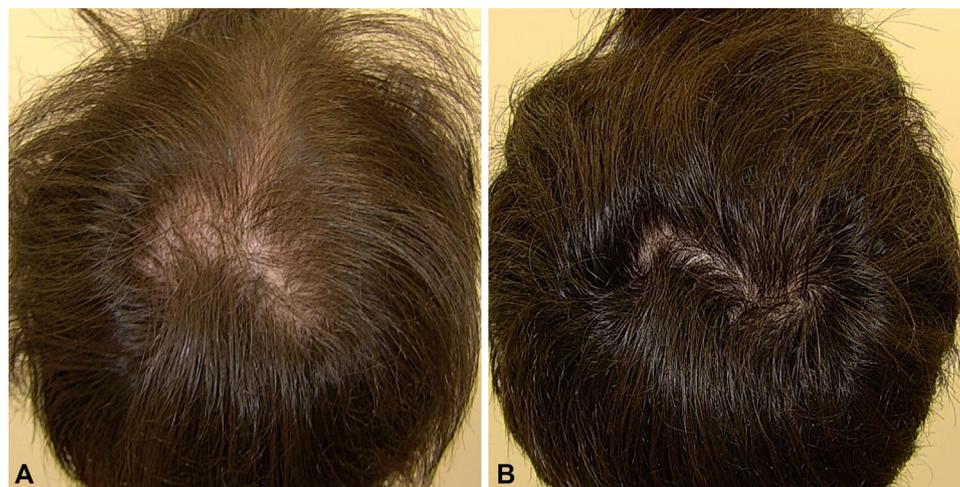


Fig 1. **A**, Androgenetic alopecia grade II in a 28 year-old male. **B**, Marked improvement after 3 months of treatment with oral minoxidil, 5 mg daily, in monotherapy.

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