



MEDICAL THERAPIES AND PHARMACOLOGY

A RANDOMIZED CLINICAL TRIAL OF 10% TOPICAL MINOXIDIL VERSUS 5% TOPICAL MINOXIDIL AND PLACEBO IN THE TREATMENT OF MALE ANDROGENETIC ALOPECIA

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Introduction: Androgenetic alopecia is a stressful condition for most men. In United States, Minoxidil 2%&5% have been approved by FDA for treatment of this condition. In literature, all studies have compared minoxidil 5% with 2%. Although other concentrations (2% to 12.5%) are available nowadays, we believe our study is the first to compare 10% versus 5% topical minoxidil in treatment of AGA.

Objective: The purpose of this study was to compare the efficacy and safety of 5% topical minoxidil with 10% topical minoxidil and placebo in the treatment of men with AGA and to study safety profile of 10% topical minoxidil.

Materials & Methods: 36-weeks, double-blinded, placebo-controlled, randomized trial. A total of 90 men aged from 22 to 43 years with AGA. 1st group have applied 5% topical minoxidil solution (n=30), 2nd have applied 10% topical minoxidil solution (n=30); or 3rd placebo (n=30) twice daily. Efficacy was evaluated clinically and trichoscopically.

Results: After 36 weeks of therapy; 5% topical minoxidil (0.09 ± 0.26) was significantly superior to 10% topical minoxidil (0.05 ± 0.13) and placebo (0.01 ± 0.05) in terms of change from baseline in total hair count. Pull test in minoxidil 5%: (70%) patients had positive pull test and after 6 month treatment it was negative 0%, Minoxidil 10% group (80%) patients had positive pull test, after 6 month and it was the same and in placebo group (90%) patients had positive pull test and after 6 month it was the same. There was significant difference between the minoxidil 5 and 10% groups regarding triple hair count. No reported sexual dysfunction in all three groups.

Conclusion: In men with AGA, 5% topical minoxidil was moderately superior to 10% topical minoxidil and placebo in increasing hair regrowth opposite to the expected, and the irritation was marked for those who used 10% topical minoxidil. Psychosocial stress after 10% usage were worsened by the shedding, irritation compared to their high expectation in comparison to 5% usage.

