



NAIL DISORDERS

ORAL BIOTIN 2.5MG AND 5% MINOXIDIL INCREASE THE GROWTH RATE OF FINGERNAILS: AN OPEN CONTROLLED CLINICAL TRIAL.

Lefm Garbers⁽¹⁾ - Ac Miola⁽¹⁾ - Pcr Dias⁽¹⁾ - Lda Miot⁽¹⁾ - Jv Schmitt⁽¹⁾ - Ha Miot⁽¹⁾

São Paulo State University - Unesp, Dermatology, Botucatu, Brazil⁽¹⁾

Introduction: There's little information available on how nutritional supplements and/or hair stimulants affect nail growth.

Objective: To evaluate the efficacy of topical minoxidil and oral biotin in the improvement of growth rate of the fingernails.

Materials and Methods: Quasi-experimental clinical trial (open, parallel and factorial design) involving 38 healthy volunteers, who were allocated in groups: control (n=9), only topical minoxidil 5% b.i.d. (n=11), only oral biotin 2.5mg/day (n=9) and combined use of treatments (n=9), which were compared in terms of speed of nail growth (2nd and 4th fingernails), after 14 and 28 days of treatment. All subjects were observed during 14 days without the use of any indicated therapy (baseline). After this period, the treatments started, with a duration of 28 days. Nails were measured 28 (T14) and 42 (T28) days after inclusion. The nail growth rate was compared to the T0 and among the treatments.

Results: The nail growth rate increased in the first two weeks with all treatments, when compared to control group ($p < 0.01$), which was sustained in the following 14 days ($p > 0.1$). The minoxidil group promoted an increase in the speed of nail growth of about 17%, against 13% in the biotin group and 15% when both drugs were combined. The groups treated with minoxidil or biotin associated with minoxidil showed superior growth when compared to exclusive biotin throughout the whole period of the study ($p < 0.05$). However, there was no superiority of the association when compared to the use of exclusive topical minoxidil ($p > 0.1$). Dominant hands and those nail bitters disclosed greater speed of nail growth ($p < 0.05$).

Conclusion: Minoxidil and biotin resulted in a significant increase in the nail growth rate of fingers in healthy adults. There was superiority of minoxidil over biotin, however, the association didn't show any advantage in the treatment.

