



LASERS

FRACTIONAL CO₂ LASER ASSISTED DELIVERY OF TOPICAL TAZAROTENE VERSUS TOPICAL TIOCONAZOLE IN THE TREATMENT OF ONYCHOMYCOSIS

Esam Bakr Abdel-aal⁽¹⁾ - Hamed Abdou⁽²⁾ - Shady Mahmoud Ibrahim⁽²⁾

*Al-azhar University, Al-hussein University Hospital/dermatology Department, Cairo, Egypt⁽¹⁾
- Al-azhar University, Al-hussein University Hospital/dermatology Department, Cairo, Egypt⁽²⁾*

Background: Onychomycosis is a chronic fungal infection of the nail, characterized by nail discoloration, thickening, and defect. Onychomycosis treatment has been proven to be a challenge to healthcare professionals. Antifungal drugs have been the mainstay of therapy for many years. Recently, laser technologies have been introduced as a treatment for onychomycosis avoiding the disadvantages of systemic.

Objective: To evaluate the efficacy of fractional carbon dioxide laser assisted delivery of topical tazarotene versus topical tioconazole in the treatment of onychomycosis.

Material and Methods: A total of 102 patients with onychomycosis were randomly assigned to groups A and B, both groups were treated with 4 sessions of fractional CO₂ laser and followed by topical tazarotene 0.1% in group A and topical tioconazole 28% in group B. The clinical effect, KOH examination, and culture for the affected nails in the two groups were analyzed.

Results: One month after last session, regarding clinical response, 35.3% showed complete improvement in group A versus 33.3% in group B without significant difference. There was a significant difference between the two studied groups as regard KOH test and culture result before and after treatment (p value < 0.001), it was turned negative in 91.7% and 100 % of patients in group A and 78.3% and 95.5% of patients in group B, irrespectively.

Conclusions: Laser assisted delivery of topical tazarotene and tioconazole have satisfactory results in the treatment of onychomycosis with insignificant difference between both topical treatments. Thus, it can be considered an alternative treatment modality especially for older patients who are not appropriate candidates for systemic antifungal agents.

