



LASERS

FRACTIONAL CO₂ LASER PLUS TOPICAL ANTIFUNGAL VERSUS FRACTIONAL CO₂ LASER VERSUS TOPICAL ANTIFUNGAL IN THE TREATMENT OF ONYCHOMYCOSIS

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Background: Onychomycosis is an important medical disorder affecting both patients' health and quality of life; it has been proven to be a challenge to healthcare professionals.

Objective: This study was done to compare the efficacy of CO₂ laser in combination with topical tioconazole 28% solution versus CO₂ laser only versus topical tioconazole 28% solution alone for treatment of onychomycosis.

Patients and Methods: A total of 120 patients with onychomycosis were randomly assigned to 3 groups. Group A patients were treated with fractional CO₂ laser followed by topical tioconazole 28% for 4 sessions with 3 weeks interval. Group B patients were treated with only fractional CO₂ laser for 4 sessions with 3 weeks interval. Group C patients were treated with only topical tioconazole 28% for 12 weeks. The clinical effect, KOH examination, and culture for the affected nails in the 3 groups were analyzed.

Results: One month after last session, regarding clinical response, 55% showed complete improvement in group A versus 30% in group B versus 25% in group C with significant difference in between. There was a significant difference between the three studied groups as regard KOH test and culture result before and after treatment (p value < 0.001), it was turned negative in 80 % and 70 % of patients in group A and 60% and 50% of patients in group B and 55% and 30% of patients in group C , respectively.

Conclusion: Fractional CO₂ laser combined with topical antifungal is a safe and effective treatment for onychomycosis, and its efficacy is superior to fractional CO₂ laser treatment alone or topical antifungal alone.

