

INFECTIOUS DISEASES (BACTERIAL, FUNGAL, VIRAL, PARASITIC, INFESTATIONS)

## THE EFFICACY AND FINAL COSMETIC OUTCOME OF FRACTIONAL ABLATIVE CO<sub>2</sub> LASER FOLLOWED BY PENTOSTAM™ APPLICATION VS. INTRALESIONAL PENTOSTAM™ INJECTIONS FOR ACTIVE CUTANEOUS LEISHMANIASIS

Ofir Artzi<sup>(1)</sup> - Yuval Hilerovich<sup>(2)</sup> - Oren Katz<sup>(2)</sup> - Eli Sprecher<sup>(2)</sup>

Tel Aviv Medical Center, Dermatology, Tel Aviv, Israel<sup>(1)</sup> - Tel Aviv Medical Center, Dermatology, Tel Aviv, Israel<sup>(2)</sup>

**Background:** Treatment of most Cutaneous leishmaniasis (CL) lesions by any one of the current physical and medical approaches will invariably leave permanent scars and subsequently

**Objective:** We compared the efficacy, safety, associated pain and final cosmetic outcome of fractional CO<sub>2</sub> laser followed by topical application of sodium stibogluconate vs. sodium stibogluconate injections for the treatment of CL.

**Methods:** A total of 181 lesions (20 patients) were randomly assigned to receive intralesional injections of sodium stibogluconate (control group) or fractional CO<sub>2</sub> laser treatment followed by topical application of sodium stibogluconate (study group). The final cosmesis score for each lesion was evaluated using a 1-5 Likert scale (range 1-5). based on color, depth, texture and atrophy, and general appearance of the scar. An integrated physicians' and patients' score was calculated as the average of the 4 parameters. Pain level of the procedures as well as down time, adverse effects were recorded.

**Results:** The control groups' VAS score was much higher than that of the study group (6.85 vs. 3.5, respectively,  $p < 0.001$ ). Both patients and 2 blinded dermatologists found the final cosmetic outcome to be superior for laser-treated lesions ( $p = 0.001$  vs.  $p = 0.008$  for controls).

**Conclusion:** Fractional CO<sub>2</sub> laser treatment followed by topical application of sodium stibogluconate is less painful and leads to a better final cosmetic outcome compared with intralesional injections of sodium stibogluconate.