Long pulse Nd:YAG laser for treatment of leg veins in 40 patients with assessments at 6 and 12 months.
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Abstract

BACKGROUND AND OBJECTIVES: This study assessed subjectively and objectively the efficacy of a long-pulsed Nd:YAG laser system in clearing dermal leg veins, successful treatment of which remains problematic.

STUDY DESIGN/PATIENTS AND METHODS: Forty female patients (24-58 years old, skin types II-IV) with leg veins were treated with synchronized micropulses from a long-pulsed 1,064 nm Nd:YAG laser, 6 mm diameter spot size, 130 and 140 J/cm2. One to three treatments were given at 6-week intervals, with post-treatment assessments at 6 and 12 months. Patients assessed improvement subjectively with a satisfaction index (SI). Objective assessment was based on the clinical photography, and in addition on computer-generated data from a Canny operator-based edge-detection program.

RESULTS: The overall patient satisfaction rates and objective assessments at the 6 and 12 month assessments were 42.5 and 57.5%, and 75 and 82.5%, respectively.

CONCLUSIONS: The long-pulsed Nd:YAG laser offered efficient treatment of leg veins. Side effects were minimal and transient. The edge-detection program may help patients appreciate better the actual results of the treatment.

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