

Treatment of pseudofolliculitis barbae in skin types IV, V, and VI with a long-pulsed neodymium:yttrium aluminum garnet laser

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BACKGROUND: Pseudofolliculitis barbae affects a large number of individuals with coarse curly hair, and present treatment options are suboptimal.

OBJECTIVE: We evaluated the safety and efficacy of a long-pulsed neodymium:yttrium aluminum garnet (Nd:YAG) laser in the treatment of pseudofolliculitis barbae.

METHODS: This was a two-phase observational study conducted at a military tertiary medical facility. The study group included 37 patients (skin types IV, V, and VI) referred from primary care physicians with a diagnosis of pseudofolliculitis barbae refractory to conservative therapy. In phase I, one treatment with a Nd:YAG laser was performed on a tattooed area of the thigh with 3 light doses. Epidermal tolerance was evaluated, and hair counts were performed 3 months after treatment for each light dose. In phase II, the highest dose tolerated by the epidermis from phase I was applied to a small submental region of skin with an adjacent site as a control. Subsequently, papule counts were performed 90 days after treatment in the laser-irradiated and control areas.

RESULTS: Phase I: When normalized for controls, there was 33%, 43%, and 40% hair reduction on the thigh for the 50, 80, and 100 J/cm² fluences, respectively, after 90 days. Overall, the highest doses tolerated by the epidermis were 50, 100, and 100 J/cm² for type VI, V, and IV skin, respectively. Phase II: Mean papule counts after 90 days were 6.95 and 1.0 for the control and treatment sites, respectively.

CONCLUSION: Nd:YAG laser treatment may represent a safe and effective option for reducing hair and subsequent papule formation in patients with pseudofolliculitis barbae.