

# Low Fluence 1064nm Laser Hair Reduction for Pseudofolliculitis Barbae in Skin Types IV, V, and VI

Rafael Schulze, MD<sup>1</sup>, Ken J. Meehan, PA-C<sup>2</sup>, Antonia Lopez, PA-C<sup>2</sup>, Kasina Sweeney, MD<sup>2</sup>, Doug Winstanley MD<sup>2</sup>, William Apruzzese, MPH<sup>3</sup>, E. Victor Ross, MD<sup>4</sup>

<sup>1</sup> Dermatology Department, Brooke Army Medical Center, Ft Sam Houston, Texas

<sup>2</sup> Dermatology Department, Naval Medical Center San Diego, San Diego, California

<sup>3</sup> Palomar Medical Technologies, Boston, Massachusetts

<sup>4</sup> Scripps Green Hospital, San Diego CA

**Background and Objectives:** To evaluate the efficacy of a 1064nm Nd:YAG laser using lower than traditional fluences (22-40 J/cm<sup>2</sup>) for pseudofolliculitis barbae (PFB) treatment.

**Study Design/Material and Methods:** Interventional study conducted on 22 patients (skin types IV, V, and VI) referred with pseudofolliculitis barbae refractory to conservative therapy. Investigators conducted five weekly treatments over the anterior neck using a 1064nm Nd:YAG laser at 12 J/cm<sup>2</sup>. Pulse duration was 20 ms with 10mm spot size and contact cooling. Topical anesthesia was not used. Treatments were completed within 15 minutes of patient arrival. Patients presented for 2 and 4 week follow-up. The outcome measure was overall PFB reduction by assessing dyspigmentation, papule counts and cobblestoning. Evaluators used a Global Assessment Scale (GAS) to compare baseline to 4-week follow-up visit photographs. In addition to GAS, hair and papule counts were performed on a subset of five patients. Investigators recorded adverse effects using a Visual Analog and Side Effect Scale.

**Results:** Overall 83% improvement in the Global Assessment Scale ( $P < 0.01$ ). There was a mean 59.5%, 91.2% and 75.6% reduction in dyspigmentation ( $P < 0.03$ ), papule count ( $P < 0.01$ ), and cobblestoning ( $P < 0.02$ ) scores, respectively. In the 5 patient subset, there was an 80.5% and 89.5% reduction in hair and papule counts, respectively. Patients reported “1/10” in both adverse effects scales, described as mild discomfort and erythema.

**Conclusions:** Low fluence 1064nm laser treatment achieved significant reduction in pseudofolliculitis barbae. Subjects reported minimal pain without topical anesthesia and high degree of satisfaction.