

# A Clinical Evaluation of the 1064nm Nd:YAG Laser with a 650-microsecond Pulse Duration for the Treatment of Acne Vulgaris



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**Synopsis:** Acne Vulgaris remains an extremely common skin condition with minimal advancement in treatment strategies. A need for novel therapies that are convenient and effective remains.

**Objective:** The objective of this study was to evaluate the efficacy of the 1064nm Nd:YAG laser with a 650-microsecond pulse duration in the treatment of acne vulgaris.

**Methods:** 10 patients (Fitzpatrick Skin Type I-IV) with acne vulgaris on the face resistant to standard acne regimens or those looking for alternative therapies were treated with the 1064nm Nd:YAG laser with a 650-microsecond pulse duration. Treatments were performed on average every 1-4 weeks for 3 to 7 treatments. The laser treatment protocol included 3 passes on the entire face with 3-6 stacked pulses on active lesions.

**Results:** Improvement of acne lesions occurred as early as 3 weeks post-treatment, with the majority of subjects clearing after 4 treatment sessions. Treatments were very well tolerated with no reported pain during or after treatment.

**Conclusions:** Advantages of this laser modality include essentially no pain or downtime and the ability to safely treat all skin types with acne vulgaris. The 1064nm Nd:YAG laser with a 650-microsecond pulse duration is a safe and effective alternative treatment option for acne vulgaris. The mechanism of action is thought to be due to reduction of sebum output, inflammation and destruction of bacteria, but further studies are warranted.

**Disclosures:** Dr. Ortiz and Saedi are members of the Aerolase Medical Advisory Board



Figure 1 a)



Figure 2 a)



Figure 3 a)



Figure 1 b)



Figure 2 b)



Figure 3 b)

**Figure 1 a)** 17 y.o. female with resistant acne on tretinoin 0.025% cream, clindamycin 1% gel and benzoyl peroxide 5% wash. **b)** Clearance after 4 treatments with the 1064 nm Nd:YAG laser with a 650-microsecond pulse duration. **Figure 2 a)** 20 y.o female with resistant acne on doxycycline 100 mg po bid, tretinoin 0.05% cream, and benzoyl peroxide 5% wash. **b)** Clearance after 4 treatments with the 1064 nm Nd:YAG laser with a 650-microsecond pulse duration. **Figure 3 a)** 21 y.o. female with resistant acne on tretinoin 0.025% cream and clindamycin 1% lotion. **b)** Clearance after 4 treatments with the 1064 nm Nd:YAG laser with a 650-microsecond pulse duration.