

Clinical Applications - Cutaneous - *Photoaging and Picosecond*

SAFETY AND EFFICACY OF A PICOSECOND 755nm WAVELENGTH ALEXANDRITE LASER WITH FOCUS LENS ARRAY FOR THE TREATMENT OF NECK LAXITY

Hana Jeon, Daniel A. Belkin, Roy G. Geronemus

Laser & Skin Surgery Center of New York, NY

Background: Non-invasive treatment of neck laxity has been a growing area of interest in the field of dermatologic surgery, and many technologies have been proposed to offer nonsurgical alternatives for patients. The purpose of the study was to evaluate the safety and efficacy of the treatment of skin laxity on the neck using a picosecond 755nm laser with focus lens array.

Study Design/Materials and Method: A prospective, single center study using a picosecond 755nm laser with focus lens array (Cynosure) was performed to evaluate the efficacy of treating neck laxity. Twenty-five patients were enrolled. The treatment parameters were 0.71 J/cm², 6mm spot size, pulse width of 750 picoseconds, and 10 Hz. Each patient received five treatments to the neck every two to four weeks (average of three weeks). Follow-up visits were done at one month and three months following the last treatment. Digital photographs were taken at each visit. Patient and physician satisfaction scores as well as Global Aesthetic Improvement Scales (GAIS) were assessed.

Results: Twenty-four patients completed the study (21 females, 3 males). The patients' Fitzpatrick skin types ranged from I to IV (I 8%, II 72%, III 16%, and IV 4%). The age ranged from 39 to 65 (average 58). The number of total pulses were 5042 on average (range 5006 to 5612). The majority of patients did not require anesthesia (84%), and the average pain score during the treatment was 4.7 on a 0 to 10 scale. Cool air was used for 84% of the treatments to provide comfort. On average, mild redness following the treatment lasted for less than a day (0.6 days, range 0 to 5 days), and mild pain lasted for less than a day (0.1 days, range 0 to 2 days). Patients did not experience any swelling, crusting, bruising, infection, scarring, or dyspigmentation. On average, physicians were satisfied with 42% of the treatments, with 13.5% being extremely satisfactory, and were neutral with 40% of the treatments. Physician GAIS noted improvement for 57% of the treatments. Thirty-one percent of the patients were satisfied, 18% extremely satisfied, and 38% were neutral. Seventy-four percent of patients reported that they were likely to recommend the treatment to their friends and family members.

Conclusion: A picosecond 755nm laser with focus lens array can serve as a safe nonsurgical treatment option for neck rejuvenation in Fitzpatrick skin type I-III patients, especially for those who seek treatments with minimal to no downtime. Further studies are needed to identify the clinical characteristics of neck laxity that would most benefit from this treatment.