

Evaluation of the Safety and Efficacy of the Picosecond Alexandrite Laser with a Diffractive Lens Array (DLA) for Treatment of the Photoaging Décolletage

Douglas C. Wu, MD, Mitchel P. Goldman, MD

Study Design:

- 20 subjects with significant baseline photodamage to the chest.
- 1-3 laser treatments to the décolletage with the picosecond alexandrite laser with a DLA at a fixed spot size (6 mm) and fluence (0.71 J/cm²).
- Standard photography was evaluated for dyschromia, erythema, keratosis, and rhytides at baseline and 3 weeks post last laser treatment using a standardized numerical grading score of 0-4.

Results:

- Significant improvement was seen in both dyschromia (mean score improvement of 0.6, $p=0.002$) and rhytides (mean score improvement of 0.5, $p=0.004$).
- Noted improvement in erythema and keratosis that did not reach statistical significance.
- The most common side effect was persistent erythema which typically resolved within 1-2 days.

Conclusion:

- The picosecond alexandrite laser with specialized DLA is a safe and effective treatment modality for correction of photodamage to the décolletage.
- The optimal number of treatments administered may be dependent on the pre-existing amount of photodamage.

