

The lamellar peel: A sequential nonablative and ablative laser treatment for facial skin rejuvenation

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DOI: 10.1080/14764170500369960

Publication Frequency: 4 issues per year

Published in:  [Journal of Cosmetic and Laser Therapy](#), Volume [7](#), Issue [3 & 4](#)



December 2005 , pages 191 - 195

Subject: [Plastic & Esthetic Surgery](#);

Formats available: HTML (English) : PDF (English)

Previously published as: Journal of Cutaneous Laser Therapy (1462-883X)

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Abstract

Objectives. Ablative and nonablative laser treatments have established themselves independently in the rejuvenation of aging skin. This study was designed to determine the effects of sequential nonablative and ablative laser treatments on facial skin.

Materials and methods. Twelve patients, ages 32-56 years, with skin phototypes I-IV, received three treatments spaced six weeks apart. Each treatment consisted of one pass with 1319-nm Nd:YAG laser at 16 J/cm², 50 ms pulse duration. This was immediately followed by one pass of 2940-nm Er:YAG laser at 5 J/cm². Photographs and biopsies were taken prior to the first treatment and following the third treatment.

Results. Clinical improvements in facial skin tone and texture, acne scarring and dyschromia were noted in all patients. Histologic changes included a more compact epidermal granular layer and lamellar collagen formation with decreased solar elastosis in the dermis. Compared to controls, treated skin had a thicker, more homogeneous papillary dermis.

Conclusion. The sequential use of nonablative and superficial ablative laser treatments clinically and histologically improved photodamaged and chronologically aged skin. This occurred with minimal recovery and little morbidity, demonstrating this laser application to be a safe and effective method for facial rejuvenation.

Keywords: non-ablative lasers; erbium laser skin resurfacing; facial rejuvenation [view references \(10\)](#)