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Split-face comparison of photodynamic therapy with 5-aminolevulinic acid and intense pulsed light versus intense pulsed light alone for photodamage.

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Abstract

BACKGROUND:

Photodynamic therapy (PDT) with a 5-aminolevulinic acid (ALA) photosensitizing agent and a variety of lasers and light sources has been shown to enhance the treatment of photodamaged skin and its associated actinic keratoses (AKs). The efficacy of short-contact, full-face ALA by PDT in photorejuvenation has also been demonstrated.

OBJECTIVE:

To evaluate short-contact (30 to 60 min) ALA-PDT with intense pulsed light (IPL) activation by comparing ALA-PDT-IPL with IPL alone. METHODS Sixteen patients were enrolled in a split-face study. One side of each patient's face received ALA-PDT-IPL and the other side received IPL alone. Three treatments were given at 1-month intervals, and follow-up visits occurred at 1 and 3 months after the final treatment.

RESULTS:

Thirteen patients completed the trial. Three months after the final treatment, improvement was greater in the ALA-PDT-IPL side than in IPL-alone side for all facets of photodamage-crow's feet appearance (55 vs 29.5%), tactile skin roughness (55 vs 29.5%), mottled hyperpigmentation (60.3 vs 37.2%), and telangectasias (84.6 vs 53.8%). The clearance rate of AK lesions was also higher (78 vs 53.6%).

CONCLUSION:

Short-contact ALA-PDT-IPL brings about greater improvement in photodamaged skin and greater clearance of AK lesions than IPL alone, further confirming the usefulness of ALA-PDT in photorejuvenation.