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Photorejuvenation using topical 5-methyl aminolevulinate and red light.

Ruiz-Rodríguez R[1], López L, Candelas D, Pedraz J.
Author information

Abstract

BACKGROUND:
Photodynamic therapy has been proved to be effective in skin rejuvenation.

OBJECTIVE:
To evaluate clinical efficacy and side effects of photodynamic therapy using topical 5-methyl aminolevulinate and red light for photorejuvenation.

METHODS:
A randomized, prospective, split-face comparison study of 10 white, adult patients with moderate photodamage, Fitzpatrick skin types 2 or 3, and no occurrence of actinic keratosis was performed. Three treatments using topical methyl aminolevulinate cream, applied for 1 hour on one half of the face and 3 hours on the other half before illumination with red light. A blinded investigator prior to treatment and 2 months after the third treatment evaluated each side of the subject's faces.

RESULTS:
A moderate improvement in fine lines, tactile roughness, and skin tightness was observed in most of the patients, mostly on the 3-hour time side. There were no changes in mottled pigmentation or telangiectasias. Side effects were observed in all subjects (erythema, edema, scaling) mainly in the 3-hour incubation time side.

LIMITATIONS:
The small number of patients and the lack of placebo group.

CONCLUSION:
Methyl aminolevulinic-photodynamic therapy with red light can improve fine lines, tactile roughness and skin tightness in patients with moderate photoaging and no occurrence of actinic keratosis.