

Comparison of 5-aminolevulinic acid photodynamic therapy and red light for treatment of photoaging.

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Author information

Abstract

OBJECTIVE:

The aim of this pilot study was to compare the efficacy of ALA-PDT and red light alone in the treatment of photoaging.

METHODS:

A total of 14 adults with photoaging skin were recruited. ALA-PDT or red light alone was applied to the forearm extensor. Before and after treatment, the treated sites were examined by dermoscopy, the changes in stratum corneum (SC) hydration, transepidermal water loss (TEWL), and the L*a*b* values were measured, and microscopic examination of collagens and elastins was performed.

RESULTS:

After ALA-PDT or red light illumination, the appearance of photoaging lesions improved, SC hydration increased and TEWL decreased. These changes in the ALA-PDT group were more obvious than those in the red light group. No significant change was noticed in the L*a*b* values in both groups. The signs of typical solar elastosis damage were improved in both groups.

CONCLUSIONS:

ALA-PDT showed better skin rejuvenation effect than red light alone.

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