



HAIR DISORDERS

THE BENEFITS AND HARMS OF 308-NM EXCIMER LASER TREATMENT FOR ALOPECIA AREATA: A SYSTEMATIC REVIEW AND META- ANALYSIS OF RANDOMIZED CONTROLLED TRIALS

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Background: Although it has been reported that the excimer laser (EL) treatment is effective for alopecia areata (AA), there has been no comprehensive systematic review of its efficacy and safety.

Objective: This study aimed to systematically review the benefits and harms of EL treatment in AA patients.

Materials and Methods: A comprehensive database search of MEDLINE, EMBASE, Web of Science and the Cochrane library databases from inception to December 31, 2018, was performed for all prospective studies. Of 22 studies initially identified, the full texts of 11 studies were assessed for eligibility, and 5 were finally included in the analysis. The primary outcome was the proportion of treatment success, defined as cosmetically acceptable hair regrowth or at least 75% regrowth of each designated patch or whole lesions in a patient.

Results: We analyzed 5 randomized controlled trials comprising a total of 87 AA patches/patients. The EL treatment showed a significantly higher treatment success rate than the untreated control group (risk difference [RD] 50.3%; 95% confidence interval [CI] 21.1-79.5%; number needed to treat 2). No special harm was found related to the use of EL. In a subgroup analysis excluding cases with alopecia totalis or universalis, the EL treatment had a superior result (RD 59.1%; 95% CI 25.1-93.1%) as well.

Conclusions: This systematic review revealed the significant benefit of EL in the treatment of AA. Given that EL treatment is noninvasive, as opposed to intralesional corticosteroid injection, the use of EL should be encouraged for AA patients.

