

Does phototherapy help those suffering from atopic eczema?

Clinical Question

What are the effects of phototherapy regimens (e.g. narrowband ultraviolet B (NB-UVB), broadband ultraviolet B (BB-UVB), psoralen plus ultraviolet A (PUVA), ultraviolet A1 (UVA1)) for people with atopic eczema?

Bottom Line

This review included four studies (89 participants) that compared NB-UVB with no treatment or placebo. The certainty of evidence for outcomes from these studies was low. Physician-assessed changes in clinical signs (assessed using a total disease activity score) may improve more with NB-UVB than with placebo after 12 weeks of treatment. For patient-reported changes in symptoms, itching may be reduced more with NB-UVB compared to placebo after 12 weeks of treatment. NB-UVB may also provide moderate or greater improvement as measured by Investigator Global Assessment (IGA) than placebo after 12 weeks of treatment. After only four weeks duration of treatment, however, there seems to be very little treatment effect.

The remaining studies compared different types of phototherapy regimens but there was insufficient evidence available to determine effectiveness of the other phototherapies.

Caveat

Although atopic eczema is common in children, the mean age of the study participants was 28 years (range: 5 to 83 years old; five studies did not report the mean age). Most studies included only Skin types II to III (white-to-medium skin colours), limiting their generalisability.

UVB was the most prevalent intervention type assessed in the included studies: approximately 40% of the studies assessed NB-UVB, which reflects its status as the most recognised and widespread form of phototherapy treatment for atopic eczema. Evidence for the comparison NB-UVB versus placebo provided low certainty evidence as there were small sample sizes and there were some concerns about the conduct of some of the included studies which led them to be judged as at high risk of bias.

Context

Atopic eczema is a common chronic inflammatory skin condition with several treatment options available. Therapeutic options for moderate to severe atopic eczema include phototherapy and photochemotherapy. NB-UVB is currently the most recognised and widespread form of phototherapy treatment available for atopic eczema.

Cochrane Systematic Review

Musters AH, Mashayekhi S, Harvey J, Axon E, Lax SJ, Flohr C, Drucker AM, Gerbens L, Ferguson J, Ibbotson S, Dawe RS, Garritsen F, Brouwer M, Limpens J, Prescott LE, Boyle RJ, Spuls PI. Phototherapy for atopic eczema. Cochrane Database of Systematic Reviews 2021, Issue 10. Art. No.: CD013870. DOI: 10.1002/14651858.CD013870.pub2. This review contains 32 trials with a total of 1,219 participants.



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Systematic review link:

https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD013870.pub2/full