

## Complementary and Alternative Therapies for Atopic Dermatitis

SIMONE NORRIS, MD, and DAVID D. ORTIZ, MD, *CHRISTUS Santa Rosa Family Medicine Residency Program, San Antonio, Texas*

ELAINE SULLO, MLS, MAEd, *George Washington University Medical Center, Washington, District of Columbia*

Clinical Inquiries provides answers to questions submitted by practicing family physicians to the Family Physicians Inquiries Network (FPIN). Members of the network select questions based on their relevance to family medicine. Answers are drawn from an approved set of evidence-based resources and undergo peer review. The strength of recommendations and the level of evidence for individual studies are rated using criteria developed by the Evidence-Based Medicine Working Group (<http://www.cebm.net/?o=1025>).

The complete database of evidence-based questions and answers is copyrighted by FPIN. If interested in submitting questions or writing answers for this series, go to <http://www.fp.in.org> or e-mail: [questions@fp.in.org](mailto:questions@fp.in.org).

A collection of FPIN's Clinical Inquiries published in *AFP* is available at <http://www.aafp.org/afp/fpin>.

### Clinical Question

What complementary and alternative therapies are effective in the treatment of atopic dermatitis?

### Evidence-Based Answer

Evening primrose oil may be effective for the treatment of atopic dermatitis. (Strength of Recommendation [SOR]: B, based on one randomized controlled trial [RCT].) Homeopathy may be as good as conventional therapy for eczema. Probiotics (SOR: A, based on a Cochrane review) and borage oil (SOR: B, based on two RCTs) should not be used in the treatment of atopic dermatitis. Psychological and educational interventions for children with atopic dermatitis and their parents may decrease disease severity and improve parental quality of life. (SOR: B, based on a systematic review of five RCTs.)

### Evidence Summary

#### EVENING PRIMROSE OIL

A small, low-quality RCT evaluating the use of 2,000 to 6,000 mg of oral evening primrose oil (8 percent gamma-linoleic acid) per day in 65 children and adults with atopic dermatitis found that evening primrose oil reduced itching and intensity of symptoms compared with placebo.<sup>1</sup> The number needed to treat was 1.6 (95% confidence interval, 1.3 to 2.6). There was no intention-to-treat analysis. The authors analyzed the results from the first 25 patients in each group (treatment and placebo) to report their results.

#### HOMEOPATHY

A 12-month, prospective, multicenter cohort observational study compared classical

homeopathic treatment with unspecified conventional treatment in 118 children one to 16 years of age who had eczema.<sup>2</sup> Homeopathic treatment was defined as "a prescription of a single remedy according to the simile law" (let like be cured by like). Fifty-four children received homeopathic treatment, and 64 children received conventional treatment. After one year, eczema symptoms and disease-related quality of life as rated by patients or parents improved in both groups ( $P = .45$ ).

#### PROBIOTICS

A Cochrane review of 12 RCTs evaluating the use of oral probiotics for the treatment of atopic dermatitis in 785 children three months to 13 years of age included a variety of probiotic strains and used parent-, patient-, and investigator-rated scales of eczema severity.<sup>3</sup> There were no significant differences in outcomes between the probiotic groups and placebo group.

#### BORAGE OIL

Two RCTs evaluating the use of oral borage oil in the treatment of atopic dermatitis did not show any improvement compared with placebo.<sup>4,5</sup>

#### PSYCHOLOGICAL AND EDUCATIONAL INTERVENTIONS

A Cochrane review analyzed five RCTs of psychological or educational interventions, in addition to conventional therapy, for atopic eczema in children.<sup>6</sup> The one study of a psychological intervention used biofeedback and hypnotherapy as relaxation techniques versus discussion only in 44 patients with a ►

## Clinical Inquiries

mean age of 9.8 years. After three sessions over 20 weeks, children in the intervention group had reduced skin surface damage and lichenification ( $P = .042$ ). However, this study did not use an intention-to-treat analysis, and 13 of the 44 children were lost to follow-up. Three of the four educational studies identified significant improvements in disease severity in the intervention groups. The fourth trial evaluated long-term outcomes and found a statistically significant improvement ( $P < .01$ ) in disease severity and parental quality of life over 12 months in all studied age groups (three months to 18 years). Heterogeneity in outcome measures and inadequate methodology limited data synthesis in this review. The psychological and educational interventions were delivered by nurses or multidisciplinary teams.

### Recommendations from Others

The American Academy of Dermatology's guidelines for treatment of atopic dermatitis state that although probiotics may be of benefit in the treatment of atopic dermatitis, the effectiveness, safety, and optimal dosage and duration of therapy need to be established.<sup>7</sup> This recommendation was released before the publication of the Cochrane review on probiotics for the treatment of eczema. The guideline authors also reviewed studies evaluating other complementary and alternative therapies, and did not find evidence to support their use in the treatment of atopic dermatitis.

Copyright Family Physicians Inquiries Network. Used with permission.

Address correspondence to Simone Norris, MD, at [simone@ifmofsa.com](mailto:simone@ifmofsa.com). Reprints are not available from the authors.

Author disclosure: No relevant financial affiliations to disclose.

### REFERENCES

1. Senapati S, Banerjee S, Gangopadhyay DN. Evening primrose oil is effective in atopic dermatitis: a randomized placebo-controlled trial. *Indian J Dermatol Venereol Leprol*. 2008;74(5):447-452.
2. Keil T, Witt CM, Roll S, et al. Homoeopathic versus conventional treatment of children with eczema: a comparative cohort study. *Complement Ther Med*. 2008;16(1):15-21.
3. Boyle RJ, Bath-Hextall FJ, Leonardi-Bee J, Murrell DF, Tang ML. Probiotics for treating eczema. *Cochrane Database Syst Rev*. 2008;(4):CD006135.
4. Takwale A, Tan E, Agarwal S, et al. Efficacy and tolerability of borage oil in adults and children with atopic eczema: randomized, double blind, placebo controlled, parallel group trial. *BMJ*. 2003;327(7428):1385.
5. Henz BM, Jablonska S, van de Kerkhof PC, et al. Double-blind, multicentre analysis of the efficacy of borage oil in patients with atopic eczema. *Br J Dermatol*. 1999;140(4):685-688.
6. Ersser SJ, Latter S, Sibley A, Satherley PA, Welbourne S. Psychological and educational interventions for atopic eczema in children. *Cochrane Database Syst Rev*. 2007;(3):CD004054.
7. Hanifin JM, Cooper KD, Ho VC, et al; American Academy of Dermatology. Guidelines of care for atopic dermatitis. *J Am Acad Dermatol*. 2004;50(3):391-404. ■

**TODAY**  
more than  
3,500 children  
will try their  
first cigarette.

Stop kids from starting.  
Volunteer to be a  
Tar Wars presenter.

[www.tarwars.org](http://www.tarwars.org)



**Tar Wars**

A tobacco-free education program for kids from  
the American Academy of Family Physicians



AMERICAN ACADEMY OF  
FAMILY PHYSICIANS



AMERICAN ACADEMY OF  
FAMILY PHYSICIANS  
FOUNDATION

Supported in part by a grant from the American Academy of  
Family Physicians Foundation.