ber needed to treat [NNT]: 6). Tacrolimus 0.1% was also more effective than hydrocortisone acetate 1% (NNT: 4). In comparison, tacrolimus 0.03% was more effective than hydrocortisone acetate 1% (NNT: 5) but less effective than hydrocortisone butyrate 0.1% (NNT: −8). Direct comparisons of tacrolimus 0.03% and tacrolimus 0.1% consistently favored the higher strength formulation. Pimecrolimus was far less effective than betamethasone valerate 0.1% (NNT: −3 at 3 weeks).

CONCLUSIONS. Both topical pimecrolimus and topical tacrolimus are more effective than placebo treatments for atopic dermatitis, but in the absence of studies that show long-term safety gains, any advantage over topical corticosteroids is unclear. Topical tacrolimus is similar to potent topical corticosteroids and may have a place for long-term use in patients with resistant atopic dermatitis on sites at which adverse effects from topical corticosteroids might develop quickly. In the absence of key comparisons with mild corticosteroids, the clinical need for topical pimecrolimus is unclear. The usefulness of either treatment in patients whose conditions have failed to respond adequately to topical corticosteroids is also unclear.

REVIEWER COMMENTS. With the recent worry of “black-box” warnings on these medications, it is useful to see a meta-analysis of controlled trials on pimecrolimus and tacrolimus as an alternative to steroids in the treatment of atopic dermatitis. The results of this study suggest that the usefulness of either treatment in patients whose conditions have failed to respond to topical corticosteroids is unclear but that they may provide an alternative to steroids in certain clinical scenarios. One should keep in mind the risk/benefit ratio of all immunosuppressive medications in the treatment of atopic dermatitis.

URL: www.pediatrics.org/cgi/doi/10.1542/peds.2006-090088

Wanda Phipatanakul, MD, MS
Boston, MA

Effects of Probiotics on Atopic Dermatitis: A Randomised Controlled Trial

PURPOSE OF THE STUDY. To examine the effects of probiotics on moderate-to-severe atopic dermatitis (AD) in young children.

STUDY POPULATION. Fifty-six children (aged 6–18 months) with moderate-to-severe AD (a modified scoring AD [SCORAD] index of ≥25). Patients were excluded if they had previous exposure to probiotics, were currently taking antibiotics, or had other major medical problems.

METHODS. Study participants were randomly assigned to receive probiotics (1 × 10⁶ colony forming units Lactobacillus fermentum) or placebo twice daily for 8 weeks. Patients were stratified and block-randomized by SCORAD index, topical corticosteroid potency, and age. Participants were evaluated at baseline and weeks 2, 4, and 8 of the intervention period, with a final postintervention evaluation at week 16. The primary outcome measure was change in AD extent and severity as assessed by the modified SCORAD index. Secondary outcome measures included (1) change in family quality of life, (2) change in topical corticosteroid use, and (3) parental impression of the intervention.

RESULTS. The SCORAD index of the children in the intervention group was significantly reduced over time compared with those in the placebo group, and the effect continued 2 months after the intervention was completed. Statistically significant improvement over baseline was seen in 92% of the intervention participants compared with 63% of children in the placebo group. Secondary outcome measures were not significantly different between groups. There were significantly fewer reported lower respiratory tract infections in the intervention group and no clinically significant adverse events recorded in either group.

CONCLUSIONS. Probiotics are beneficial in decreasing severity and extent of moderate-to-severe AD among children <2 years old.

REVIEWER COMMENTS. This is the first study to examination the effects of probiotics among young children with moderate-to-severe AD (mean SCORAD index: 41); previous studies examined children with milder disease (mean SCORAD index: 16). Similar to previous reports, the current study found significant improvements in objective signs of disease in terms of severity and extent. However, there were no significant differences in parental subjective observations or topical steroid use. The chronic nature of AD makes it difficult to assess subtle changes in quality of life or parental perceptions of disease in such a short period of time. It is possible that improvements in subjective findings and medication use would have been more evident if the study period was longer. There was a considerable placebo effect, and although statistically insignificant, more than half of the participants receiving placebo showed improvement at the end of the study period. This effect was likely, in part, because of improved adherence with medications as a result of being in the study. Future long-term studies should be conducted in this population to further assess long-term efficacy, changes in quality of life, medication use, and effects on development of other atopic diseases such as allergic rhinitis and asthma.

URL: www.pediatrics.org/cgi/doi/10.1542/peds.2006-0900CC

Tamara T. Perry, MD
Little Rock, AR

Downloaded from by guest on July 17, 2017
Effects of Probiotics on Atopic Dermatitis: A Randomised Controlled Trial
Tamara T. Perry

Pediatrics 2006;118;S17
DOI: 10.1542/peds.2006-0900CC

Updated Information & Services
including high resolution figures, can be found at:
/content/118/Supplement_1/S17

References
This article cites 1 articles, 1 of which can be accessed free at:
/content/118/Supplement_1/S17#ref-list-1

Permissions & Licensing
Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at:
/site/misc/Permissions.xhtml

Reprints
Information about ordering reprints can be found online:
/site/misc/reprints.xhtml

PEDIATRICS is the official journal of the American Academy of Pediatrics. A monthly publication, it has been published continuously since 1948. PEDIATRICS is owned, published, and trademarked by the American Academy of Pediatrics, 141 Northwest Point Boulevard, Elk Grove Village, Illinois, 60007. Copyright © 2006 by the American Academy of Pediatrics. All rights reserved. Print ISSN: 0031-4005. Online ISSN: 1098-4275.
Effects of Probiotics on Atopic Dermatitis: A Randomised Controlled Trial
Tamara T. Perry

Pediatrics 2006;118;S17
DOI: 10.1542/peds.2006-0900CC

The online version of this article, along with updated information and services, is located on the World Wide Web at:
/content/118/Supplement_1/S17