Jennifer E. Yates, MD, and Jennifer B. Phifer, MD
Coastal Area Health Education Center, Family Medicine Residency, Wilmington, NC

Donna Flake, MSLS, MSAS
Coastal Area Health Education Center, Health Sciences Library, New Hanover Regional Medical Center, Wilmington, NC

Do nonmedicated topicals relieve childhood eczema?

Evidence-based answer

Yes. Emollients are effective first-line treatment to decrease symptoms of eczema and reduce the need to use steroids in children (strength of recommendation [SOR]: **A**, consistent randomized, controlled trials [RCTs]).

Tar preparations work, but compliance may be limited (SOR: **B**, single small RCT). Gamma-linoleic acid preparations, borage oil, and evening primrose oil show efficacy in small studies (SOR: **B**, small RCTs). MAS063DP cream (Atopiclair) is effective (SOR: **B**, single RCT).

Chamomile (SOR: **B**, inconsistent RCTs) and bathing in acidic hot spring water (SOR: **C**, case-control study) may be effective, but these treatments have not been adequately evaluated. Wet wrap dressings may be effective but increase the risk of skin infections (SOR: **B**, single RCT).

Hamamelis distillate creams (SOR: **B**, limited RCT) and massage with essential oils/aromatherapy are ineffective (SOR: **C**, case-control study).

FAST TRACK

Emollients are effective first-line treatment to decrease symptoms of eczema and reduce the need to use steroids in children.

Evidence summary

Eczema is a chronic, inflammatory, pruritic skin disorder that affects infants, children, and adults. Therapeutic efficacy is defined as symptom relief and decreased inflammation. Topical corticosteroids and calcineurin inhibitors (such as tacrolimus and pimecrolimus) are the standard of care for prescription therapy in children, but their potentially harmful side effects argue for safer, nonmedicated treatments.

Topical treatments that work

Emollients have demonstrated efficacy in several RCTs compared with placebo and corticosteroids alone. No 1 preparation has proved superior to another; all reduce steroid use and improve skin hydration.[1-3]

Tar. Only 1 study has evaluated the use of tar: a comparison of 30 patients (mean age 11.8 years) who were treated with tar on one side of the body and 1% hydrocortisone on the other. Both treatments produced comparable results and were well tolerated. But compliance can be a problem with tar products because they smell unpleasant and stain clothing.[4]

Gamma-linoleic acid. Small studies have evaluated the efficacy of gamma-linoleic acid (GLA)—including borage oil (24% GLA) and evening primrose oil (7%-10% GLA). An RCT of 12 patients (ages 4-46 years, mean 18 years) that compared evening primrose oil with placebo found that patients treated with primrose oil showed a subjective improvement in skin scaling, dryness, redness, and itching.[5]

A double-blind, placebo-controlled trial of 32 children that assessed the effects of undershirts coated with borage oil compared with noncoated undershirts found statistically significant improvements in both itching and erythema.[6]

MAS063DP is a nonsteroidal, hydroli-

pidic cream containing glycyrrhetinic acid (GrA), vitis vinifera (grapevine extract), and telmestine. A recent multicenter RCT of 142 children compared MAS063DP to vehicle cream alone. The primary outcome was treatment success defined as an Investigator's Global Assessment score of ≤1 (range 0-5), measured on day 22. Therapy was successful in 77% of the treatment group vs 0% of the vehicle-only group (number needed to treat=1).[7]

Hot spring baths, chamomile may help

In a case control study of 70 patients (ages 12-80 years, mean 23 years,) bathing in acidic hot spring water (42° C) helped control edema, erythema, exudation, and excoriation in refractory cases of eczema.[8]

Several adult and mixed adult-child studies have found mild efficacy for chamomile extracts. One RCT demonstrated topical chamomile to be equivalent to 0.25% hydrocortisone cream for treating mild eczema.[9]

Wet wraps may help, but may raise skin infection risk

A critical review suggests that short-term use of wet wraps in combination with topical steroids and emollients is effective for severe eczema. However, a small RCT of 50 children found no additional benefit over standard care and an increased risk of skin infection (95% CI, 5%-42%; *P*=.05) with a number needed to harm of 5.[10,11]

Essential oils, hamamelis distillate don't work

In 1 case control study, massage with essential oils didn't improve eczema compared with massage without essential oils.[12] Hamamelis (witch hazel) distillate cream was inferior to steroid creams.[13]

Recommendations

The American Academy of Dermatology guidelines state that emollients are the standard of care for childhood eczema and have a steroid-sparing effect (level of evidence [LOE]: **A**). Tar preparations have therapeutic benefits, but compliance is a major limitation (LOE: **B**). Not enough evidence exists to recommend acidic baths. The guidelines make no recommendations about other topical therapies.

A task force to formulate practice parameters has been created by the American College of Allergy, Asthma, and Immunology; the American Academy of Allergy, Asthma, and Immunology; and the Joint Council of Allergy, Asthma, and Immunology. The task force's latest recommendations suggest that emollients, tar preparations, and wet dressings are beneficial for treating eczema.[2] ■

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Eczema on the leg of a 9-year-old boy.

FAST TRACK

Topical corticosteroids are the standard of care for Rx therapy in kids, but their potential side effects argue for safer, nonmedicated treatments.