What's new in pediatric dermatology?

Part II. Treatment

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1. Reading of the CME Information (delineated below)
2. Reading of the Source Article
3. Achievement of a 70% or higher on the online Case-based Post Test
4. Completion of the Journal CME Evaluation

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Learning Objectives
After completing this learning activity, participants should be able to describe recent findings regarding the treatment of pediatric dermatology patients, including findings regarding infantile hemangiomas, atopic dermatitis, acne, tinea capitis, viral infections, alopecia areata, general anesthesia, biologic agents, and social media and appropriately manage patients in accordance with these findings.

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The field of pediatric dermatology has been rich in new developments. Part II of this continuing medical education article will focus on new therapeutic modalities for several entities encountered in pediatric dermatology. The treatment of atopic dermatitis, exciting advances in the use of propranolol and other beta-blockers for the use of infantile hemangiomas, the use of rapamycin for vascular anomalies, the use of biologics in children, the central nervous system risks of general anesthesia in young children, side effects in the use of isotretinoin, the treatment of tinea capitis, treatment of herpes simplex infections, and the use of technologies such as texting and social media in medicine will be discussed. (J Am Acad Dermatol 2013;68:899.e1-11.)

Key words: acne; atopic dermatitis; eczema herpeticum; general anesthesia; hemangioma; herpes simplex; isotretinoin; lymphangioma; neonatal herpes simplex; pediatric dermatology; propranolol; rapamycin; texting; tinea capitis; vascular malformation.

WHAT'S NEW IN THE TREATMENT OF ATOPIC DERMATITIS?

Key points

- **Diluted bleach baths are an important adjunctive treatment modality in patients with severe atopic dermatitis or atopic dermatitis prone to infection**
- **"Proactive" treatment of patients with atopic dermatitis may improve the number and severity of disease flares**

CAPSULE SUMMARY

- Oral propranolol is useful in the treatment of complex proliferative cutaneous, airway, and visceral infantile hemangiomas.
- Oral propranolol is the most effective modality for the treatment of ulcerated infantile hemangiomas.
- Topical rapamycin is a promising treatment modality for facial angiofibromas in patients with tuberous sclerosis.

Patients with AD are at high risk for infection and colonization with *Staphylococcus aureus*, but treatment and prevention of infection thus far has had variable success. A recent study found that diluted bleach baths plus intranasal mupirocin led to a significant improvement in eczema severity scores when compared to placebo, without significant adverse effects.[1] This observation has led to the addition of diluted bleach baths as the standard of care for those with severe atopic dermatitis (AD) or with AD subject to recurrent infection. A typical "recipe" calls for the addition of ¼ cup of bleach to every ½ bathtub full of water, which may help prevent the need for multiple courses or oral antibiotics.

Wet dressing therapy has been used effectively for years in the treatment of severe AD. Recently, the Mayo Clinic described their single institution's experience with wet dressing therapy for severe pediatric AD. All patients were admitted to the hospital for intensive wet dressing therapy, and all improved; 45% had 75% to 100% improvement, 38% had 50% to 75% improvement, and 6% had 25% to 50% improvement.[2] Patients were taught a method of continuing these wet dressings in the outpatient setting.

The traditional AD management dogma consists of applications of antiinflammatory medications to areas of "active" disease. Recent research indicates that a paradigm shift in that thought may be appropriate. After twice daily active treatment of AD flare areas, patients that were randomized to receive "proactive" twice weekly treatment with topical tacrolimus had significantly fewer AD flares and increased time to first flare development when compared to those who received placebo.[3] This may also be a cost effective strategy.[4] Similar clinical benefit has also been found with the twice weekly application of topical steroids.[5]

WHAT'S NEW IN THE TREATMENT OF VASCULAR LESIONS?

Key points

- **Oral propranolol is useful for the treatment of complex proliferative cutaneous, airway, and visceral infantile hemangiomas**

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