Photo Quiz: Pediatric itching of the lower extremities

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ANSWER: All of the Above

Pediatric Atopic Dermatitis (PAD) or eczema is a term commonly used to describe inflamed, dry and itchy skin. The hallmark of the condition includes excessive skin dryness and itching causing lichenification primarily to the flexural regions of the arms and legs. The condition most commonly occurs in infants, children and young adults. The condition is particularly pruritic in nature and can be associated with other conditions such as asthma, allergic rhinitis, allergies to food and increased IgE.[1] Food allergy to eggs, milk, peanuts, soy, wheat, tomatoes, oranges, chocolate and seafood can cause PAD. [1,3] The condition is of unknown origin, but is thought to be familial in nature. The condition affects about 10 percent of children and 3 percent of the US population.[2] Onset typically begins within the first year of life in 60 percent of the cases and 85 percent within the first five years.[3] It is particularly severe in the winter months and often is referred to as "winter's itch." The condition most often resolves spontaneously in children as they enter adulthood.

Atopic dermatitis (AD) typically occurs in three distinct age-related stages that may be separated by periods of remission and overlap.[3]

1) In infancy to two years of age, the skin is manifested by red, weeping, crusted lesions to the face, scalp and extremities.
2) In childhood (2-12 years of age), atopic dermatitis typically appears in the skinfold areas, especially the front of the elbow, back of the knee, inside the wrist and depressions along the ankles and neck.
3) In the adult stage, from puberty onward, people with atopic dermatitis may either have a few or no skin problems since infancy, or may have suffered a chronic relapsing course with periods of remission. There are often regions of thick, red skin caused by frequent scratching. In this stage, atopic dermatitis typically appears behind the elbows and knees, on the eyelids, neck, hands and wrists.

Atopic dermatitis is not contagious. It is a genetic disorder influenced by environmental factors. The mode of inheritance and genes involved are not clear. Research shows that a family history of allergic disorders, including hay fever and asthma, significantly increases a child's risk of developing atopic dermatititis. Children with one parent with allergies have a 30 percent risk of developing atopic dermatitis; if both parents have allergies, the risk is greater than 70 percent.[3]

Fare-ups are most common during the fall and winter when the air is dry and cool. Humid and warm weather also poses a challenge to children with atopic dermatitis. Chemicals in pools and the drying action of pool water can cause excessive skin dryness, exacerbating atopic dermatitis. Flare-ups can also be induced by skin infections, allergens and wool garments and can worsen by sudden changes in temperature and humidity or emotional stress. To minimize flare-ups, patients should avoid irritants, including soaps, solvents and other drying compounds, chlorinated water and salt water. Patients should always wear clothes that "breathe", like cotton. [3]

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Treatment

Treatment of AD consists of daily skincare hydration and decreasing inflammation. Skin hydration can be achieved by applying a variety of skin moisturizers. Avoid lotions that contain water and alcohol as these tend to increase skin dryness. Patient's suffering AD should never shower or bathe in hot water. Always wash the skin in luke warm water applying the moisturizer within three minutes of washing. This helps the moisturizer penetrate the skin up to ten times better than applying it directly to dry skin.

Special soaps can also be used including Cataphil®, Oilatum, Aveeno® and Neutrogena®. Lotions that help moisturize the skin include Eucerin®, Neutraderm, Lubriderm®, Keri®, Curel®and Moisturel®.

Children should avoid sudden changes in temperature or contact with harsh chemicals and fragrances in waters, soaps and lotions. Children should also wear breathable fabrics such as cotton to avoid flare-ups. When sleeping, avoid wool, electric and heavy blankets that may cause night sweats that can irritate AD.

Topical corticosteroid creams and sprays are the mainstay of treatment in PAD. We have found two topical corticosteroids that work the best. Clobex® spray 0.05% (clobetasol propionate) works best in areas of acute inflammation, especially in the flexural regions of the skin of the lower and upper extremities. For PAD in sensitive regions of the skin such as the face and groin, Desonide Lotion 0.05% applied twice daily works wonders.

Remember, most children will improve over time with proper treatment. It is important to keep a moisturizing treatment regime as a daily routine. If is also important to see your dermatologist or extremity skin specialist in cases of severe AD. If treatment fails, see your allergist to determine other possible allergic causes of AD.

References

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