The management and treatment of atopic dermatitis

Lawrence Charles Parish*: Lawrence Charles Parish is a graduate of the University of Pennsylvania College of Arts and Sciences (PA, USA), and received his MD from Tufts University School of Medicine (MA, USA). Following an internship at the Philadelphia General Hospital (PA, USA), he took his dermatology training at the Hospital of the University of Pennsylvania (PA, USA) under Donald Pillsbury and Walter Shelley. Currently, he is Clinical Professor of Dermatology and Cutaneous Biology at the Jefferson Medical College of Thomas Jefferson University (PA, USA), where he is also Director of the Jefferson Center for International Dermatology. He holds visiting professorships at Tulane University School of Medicine (LA, USA), Yonsei University College of Medicine (Seoul, Korea) and Zagazig University Faculty of Medicine (Zagazig, Egypt). Parish is a member of the American Academy of Dermatology and the American Dermatological Association. He is an honorary or corresponding member of Austrian, British, Bulgarian, French, Israeli, Italian and Venezuelan dermatology societies. He is the President of the International Academy of Cosmetic Dermatology and the History of Dermatology Society. Parish has been awarded an Honorary Doctor of Medicine degree by the Sofia Medical Faculty (Bulgaria). He currently edits *Clinics in Dermatology* and *SKINmed*, is the author of over 400 publications and has written or contributed to more than 50 books. His interests range from wound healing and decubitus ulcers to cutaneous infections and tropical dermatology, in addition to the various aspects of cosmetic dermatology and the history of dermatology.

Q What do you believe are the best methods for controlling atopic dermatitis?

Atopic dermatitis represents an immunologic phenomenon, whereby there are no primary lesions. When the skin is set off by the itch/scratch phenomenon, the skin becomes red. Further irritation leads to scaling and lichenification or superficial infection, oozing, weeping and purulent discharge.

The clinical manifestations can be reduced by limiting the use of soap, avoiding irritating clothing and applying topical steroids. Wool is a prime example of clothing that may cause problems. Fortunately, most wool today is worsted, so that wool, in itself, is not so much trouble; however, wool alcohol, better known as lanolin, may contribute to atopic flares. Often, patients apply an over-the-counter lotion or cream that may cause an allergic response and the worsening of the underlying dermatitis.

Diet is not considered to have a role in atopic dermatitis, at least, by US dermatologists. When Fred Wise and Marion Sulzberger introduced the concept of atopic dermatitis in 1934 to differentiate the condition from neurodermatitis [1],

*Department of Dermatology & Cutaneous Biology, Jefferson Medical College of Thomas Jefferson University, Suite 301, 1760 Market Street, Philadelphia, PA 19103, USA; larryderm@yahoo.com

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they thought that a restricted diet would control the disease. Within a short period of time, they observed that foods played no role and retracted the concept.

Q Why is atopic dermatitis often more severe when present with allergies such as allergic rhinitis and asthma?

Because this is the triad of atopy, the presence of all three conditions may signal a more intense immunologic response to unspecified allergens. Occasionally, patients with severe asthma or allergic rhinitis may have severe dermatitis, but this is not necessarily the rule.

Q Why are allergy shots usually unsuccessful in treating the disorder?

While atopic dermatitis in the dog can be attributed to specific allergens, this is not the case in humans. Over the years, many patients have been subjected to allergy testing, both intradermal and patch types, but no specific allergen has been identified as causing atopic dermatitis. It is true that many patients with atopic dermatitis can be shown to have nickel allergy or even neomycin allergy by patch testing, but this may be unrelated to the underlying condition.

Q What are the advantages and drawbacks of treating patients with corticosteroids?

Topical steroids used judiciously are the best treatment for atopic dermatitis. The anti-inflammatory qualities of the steroids far outweigh the side effects when used appropriately. For example, potent topical steroids should not be used in the intertriginous areas for fear of creating striate or on the face for fear of creating acne or hirsutism.

In severe outbreaks, oral steroids may be used judiciously. Because atopic dermatitis flares may be frequent, or even continuous, oral administration should be limited to avoid creating a Cushingoid state.

Q What kind of risks are associated with treating the disorder with immunomodulators?

Topical immunomodulators, such as tacrolimus, are beneficial in some patients. Their uses on the skin are almost without complication. Because the systemic administration of these agents in patients undergoing transplants or having malignancies is associated with significant adverse reactions, they carry black box warnings.

Q How effective is desonide lotion proving to be in the treatment of atopic dermatitis?

Desonide is a mid-potency corticosteroid and can be used on the face and intertriginous areas without concern. Usually, such a steroid is sufficient to quiet down the skin. Sometimes, the patient requires a more potent steroid to attack the flare, and the mid-potency agent frustrates the patient.

Q In what instances can phototherapy be used as a treatment option for the disorder?

Some dermatologists use phototherapy to treat severe atopic dermatitis. This treatment can be useful in selected patients with extensive dermatitis; however, the drawbacks include the consequences of excessive UV exposure and the nuisance of frequent visits to the physician's office for light treatments.

Q How convincing is the evidence that breastfeeding may prevent the development of atopic dermatitis in infants?

Breastfeeding for at least 4 months is thought to reduce the possibility of atopic disease, at least in high-risk infants. 'High risk' is usually defined as an infant with at least one parent or sibling with marked atopic disease. This would mean not introducing cow's milk until at least the fifth month after birth. In addition, waiting to introduce complementary food beyond 4–6 months does not seem to prevent atopic disease.

Q Are there any new treatment approaches that may become available to patients in the near future?

There have been periodic excursions into the research laboratories for new

approaches; however, most have been discarded, primarily for lack of efficacy.

Q Do you think that the current treatments for atopic dermatitis are satisfactory and, if not, what more needs to be done?

Current therapy involves application of topical medications at least twice a day. Imagine how unappealing and inconvenient this is. An ideal treatment would involve taking one pill or receiving one injection. Such a regimen would last for several weeks. Of course, unfortunately, this is not reality.

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Reference

1 Wise F, Sulzberger MB. *The 1935 Year Book of Dermatology and Syphilology.* Year Book Publishers, IL, USA, 101–104 (1936).