Adult-Onset Atopic Dermatitis: Fact or Fancy?

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KEYWORDS

• Atopic dermatitis • Eczema • Topical therapy • Systemic therapy

KEY POINTS

- Atopic dermatitis (AD) therapy can be a challenge in many cases.
- Persistence into adulthood often reflects the more severe cases and such patients have the added problems of hand eczema and thick nummular lesions that resist topical medications.
- Within this group are patients labeled as having adult-onset AD, a designation that is hard to define and probably represents those whose childhood eczema was simply forgotten.
- Management is difficult for most adult cases and should not be diverted by questionable labels.

INTRODUCTION: DEFINING ADULT-ONSET ATOPIC DERMATITIS IS DIFFICULT

How is a reliable diagnosis conferred? Is it a distinct, exclusive phenotype? Do such patients relate to certain genotypes? It is known that, in general, AD begins in childhood, often infancy. Then it may regress in many or most instances, perhaps leaving only a few clues to its prior state, such as hand eczema, dry skin, lowered itch threshold, periods of flare with psychological stress, IgE-mediated allergies, infections, and season changes.

Interestingly, 4 decades ago, when gathering diagnostic indicators of AD,[1,2] most clinical focus revolved around adult cases, probably because they were more severe, thus persisting and finding their way to dermatologists. AD in children was generally much easier to control. Also, primary care physicians had typically been taught that AD was an allergic disease and the children were often referred to allergists.

With the recognition of distinctions between pediatric AD and adult AD (and perhaps the growth of the pediatric dermatology subspecialty), new attention was turned to criteria that applied to the range of infants, children, and adults. The advent of topical calcineurin inhibitors caused somewhat of a shift to new clinical approaches for childhood AD. Revised diagnostic guidelines,[3] more inclusive of children, appeared as a direct result of an American Academy of Dermatology meeting focused on topical calcineurin inhibitors, agents that were seen as possibly safer than topical corticosteroids (TCSs) for use in children. These advances helped promote the distinction between pediatric and adult eczemas and brought many more children into the offices of an increased range of practitioners. That in turn led to greater consciousness of dermatologists regarding adult forms of AD. The disease was always assumed to be characterized by onset in childhood. But many adults had no recollection of childhood eczema.

Increased awareness of the full spectrum of AD may have influenced the suggestion of adult-onset AD as a distinct entity, starting with an Australian report in 2000,[4] and subsequent reports have come from many sectors, including Italy,[5,6] Turkey,[7] Greece,[8] Taiwan,[9] and India.[10]

Unfortunately, there are no validated criteria for defining this category. Hence, new questions arise, including those that began this article. Some features help explain apparent onset of AD during adulthood (**Box 1**). Clear diagnosis of

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Box 1
Features associated with claims of adult-onset atopic dermatitis

- Childhood spent in humid sunny or tropical climate
- First AD diagnosis made only after change of residence to a cold dry climate or exposure to central heating
- Onset of hand eczema after all other features of AD have regressed
- Recurrence of AD after infection or other stressor

adult-onset AD requires absence of childhood history. Certainly, people spending childhood and adolescence in warm, sunny, humid regions might never have had diagnosable AD. That clearly is the situation with many of the patients who immigrate or study in the United States from Southeast Asia and South and Central America. Beyond the transition to drier climates, the trappings of first-world living, with central heating and overbathing, are likely another major stimulus for adult-onset AD among relocated individuals.

Conversely, for patients who have not made such transitions, it seems imprecise to make a diagnosis of adult-onset AD. Mild cases of previous childhood eczema are likely to be missed. Naleway and colleagues[11] reported a high rate of recall bias in clinic-recorded AD patients who had forgotten their past eczema at a rate of approximately 40%; only 70% of the parents remembered the past occurrence in their children. Are there really cases of adult-onset AD in nontropical climates or are they resultant from patient/parent recall failure? Similar to the Naleway study, Moberg and colleagues[12] found that a third of patients with documented AD in childhood had forgotten it by the second or third decade. In their study they confirmed that patients who were more severe and had AD later in life were much more likely to recall that illness. They were also more likely to have hand eczema. That chronic, often recalcitrant, localized problem was seen as 1 factor facilitating the recollection of eczema.

This entire subject is fraught with many crucial points of contrast and conflicting yet poorly documented opinions. Hand eczema is often a late comorbidity associated with AD and it is a frequent one. In the authors' Oregon Health & Science University registry, when 950 AD patients were assessed from 1980 to 1998, 59% had current hand eczema,[13] a figure in line with other studies.[14,15] Many such patients may have only 1 to 2 mild, dorsal hand lesions, which are assumed to be AD combined with contact irritancy and are easily controlled with TCS. Therein lies a possible confusing conflict with dermatologists who insist that large proportions of such patients may actually have allergic contract dermatitis (ACD), with AD considered a lesser possibility. Even with patch testing, the causative distinction between the AD versus ACD is often unclear because patients with AD typically have epidermal barrier defects that can predispose to contact sensitization without actual delayed hypersensitivity lesions. Thus, although all 59% of the authors' hand eczema patients also had AD, and although most were adults, only a small proportion had patch testing and documented ACD. Proof of ACD did not negate the presence of AD based on well-documented criteria.[2] Some studies may also be unreliable because, especially in patients with palmar dominance, psoriasis may have been an underlying predisposition. Psoriasis and eczema are frequently misdiagnosed and patient recall may simply pick one or the other from memory or from family conditions (differential diagnosis of AD presented in **Box 2**). It seems to be useful to obtain biopsies when there is morphologic uncertainty between eczema versus psoriasis. Unfortunately, the biopsy may add uncertainty because many dermatopathologists frequently use the confusing "psoriasiform dermatitis" hedge. The most important indication for biopsy in patients with adult AD is to rule out possible cutaneous T-cell lymphoma.

The bottom line is that whether these cases are adult onset or adult recurrence of AD, they should be diagnosed and managed appropriately as AD.

Management of Atopic Dermatitis in Adults

Physicians experienced in dealing with adult AD tend to agree that management is often difficult. Most experts voice the opinion that childhood AD is much easier to deal with; this may partly reflect skin inflammation levels that are much closer to the surface and within range of safe

Box 2
Differential diagnosis in adult atopic dermatitis

- Allergic contact dermatitis
- Irritant contact dermatitis
- Psoriasis
- Seborrheic dermatitis
- Cutaneous lymphoma
- Scabies