What Is Meant by a "Flare" in Atopic Dermatitis?

A Systematic Review and Proposal

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Objective: To make preliminary recommendations for defining a flare of atopic dermatitis (AD) in clinical research based on a systematic review of the literature and experience in running clinical trials.

Data Sources: A sensitive electronic search of MEDLINE biographic database was conducted on April 19, 2005, using the following search terms: *flare$, exacerbation$, relaps$, remission$, worse$* , and **recurrence.* The search was restricted to all prospective studies of AD in humans, using the Cochrane search terms for AD and prospective studies. In addition, we searched the literature on 3 chronic intermittent diseases (asthma, rheumatoid arthritis, and multiple sclerosis) to gain insight as to how other disciplines had tackled the definition of flares.

Data Synthesis: A total of 401 citations were reviewed, of which 16 articles (15 studies) were relevant. All were clinical trials. The definitions of disease flare or relapse in retrieved articles could be categorized into 3 broad themes: (1) composite definitions that include at least 2 different factors (eg, symptoms, severity duration, or treatment) (4 studies); (2) score thresholds or changes in severity scores (8 studies); and (3) behavioral definitions, such as the use of rescue therapy (3 studies). Only 1 investigative group (3 studies) used the same definition. None of the included studies were primarily designed to develop a definition of "flare." Evidence from other disciplines suggested at least 2 measures—totally controlled weeks and well-controlled weeks from asthma research—that could be used successfully in AD research.

Conclusions: Defining an AD flare is a complex process, and this review has highlighted the need for standardization in defining measures of long-term disease control. We propose that a flare of AD be simply defined as an episode requiring escalation of treatment or seeking additional medical advice. Consideration should also be given to totally controlled weeks and well-controlled weeks to assess overall disease activity in patients with AD. Together, these definitions are intuitive, simple to use, and easy to understand. Future work is required to test the applicability of these recommendations in a variety of research settings.

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