

ATOPIC DERMATITIS: AN HYPOTHESIS

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In discussing the problem of atopic dermatitis, I wish to consider briefly three important characteristics of this disease which are of etiologic significance. First, it is intimately associated with hay fever and asthma in the patient, the patient's family or both. Second, patients with atopic dermatitis usually have an allergy of the atopic type to a least one or several substances, as indicated by skin tests, clinical symptoms or both. Third, even though the patient is allergic and the disease intimately associated with other clinical manifestations of allergy, our treatment, based upon the principles of allergy, is usually not successful. We do not help these patients much by avoidance of allergens or by desensitization.

There are at least three possible explanations for this failure of treatment. First, it may be said that the disease is not based on allergy at all. This I find impossible to accept, considering the strong evidence for allergy. Second, it may be said that the patient is allergic to known, identified substances such as certain common inhalents (house dust, fungus spores) which are very difficult to avoid, that these are the basic causes of the disease and that treatment is not effective because elimination of these substances is a practical impossibility. I personally doubt very seriously the validity of this explanation for three reasons. A. If it were correct we should be able to help these patients at least as much as we are able to help patients with hay fever and asthma. I don't think we do. I am

sure I do not. B. Exposure to these inhalants (and also to foods to which the patient is allergic) does not regularly produce an exacerbation of the dermatitis. C. These substances to which the patient is allergic, when applied to his skin (by any technique—scratch, intracutaneous, patch, patch on scratch, inunction, etc.) do not usually produce an eczematous dermatitis but usually produce only an urticaria.

The third explanation for the failure of allergic treatment, and the one which I believe to be the correct explanation, is that the patient is allergic to some unidentified substance or substances and that these are the basic allergenic causes of the disease. This is the hypothesis I wish to sponsor this afternoon.

There is present in human dander from the scalp, and, in lower concentration, in the epidermis of the general body surface, an allergen to which the majority (at least 75 %) of the patients with this disease are allergic, as shown by scratch, intracutaneous, patch or patch on scratch tests. Very few persons without the disease are allergic to this substance by patch or patch on scratch test. Everybody is exposed to it because it is present in everybody's skin. When applied to the patient's skin by patch or patch on scratch test it produces lesions which are identical with, or resemble closely, the natural lesions of the disease. I therefore believe that it is an important cause of the disease. It appears to be associated with hair follicles and sebaceous glands but has not been identified in sebaceous cysts. Its biologic origin is undetermined.

In conclusion I wish to suggest that when we hunt for causes for this disease, we not fail to look into the skin itself and that we use patch and patch on scratch tests as well as scratch and intracutaneous tests.

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