

CLINICAL EXPERIENCE IN CORN SENSITIVITY*

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FOOD allergy is a clinical reality responsible for allergic rhinitis, asthma, urticaria, atopic dermatitis, and less frequently, headache and gastrointestinal symptoms. In our experience, it is hazardous to recognize other symptoms as being on this basis unless accompanied by one of the major allergic manifestations. This viewpoint then limits somewhat our selection of patients to undergo study and may be responsible for the variance of opinions that we are observing.

By far the majority of adult patients presenting respiratory symptoms are found to be allergic to inhalants, the control of which leads to a remarkable simplification of what appeared to be a complicated situation. When food is found to be a factor, the common offenders are milk, eggs, or wheat. We rarely see multiple food sensitivities in an individual patient.

With this as a background, for the past 2 years or so we have searched for corn sensitivity. Diagnosis is based upon one or more of these findings: history, positive skin test with whole corn meal extract, or the ability to reproduce symptoms by ingestion of unrefined corn by the patient who has been adequately prepared. By this, we mean rigid avoidance of all sources of corn in the diet for 4 days, followed on the morning of the fifth day by the ingestion of corn meal.

We have found only 3 patients in whom allergic symptoms could be produced by trial ingestion of whole corn: asthma in 2 cases, and urticarial swelling of the tongue and throat in a third. However, in the latter case, symptoms appeared only when the patient ate large quantities of corn meal on 3 successive days; the trial ingestion of a single dose had no effect. The 2 asthmatics both developed asthma after trial ingestion of whole corn, and the history of each clearly demonstrates their sensitivity to this food. However, in neither did trial ingestion of cornstarch, sugar, or oil produce symptoms.

This was demonstrated in these 2 cases by trial ingestion of puddings, the content of which was unknown to us at the time of testing. The patients were prepared by 4 days of rigid avoidance of all known sources of corn and its products. One patient developed no reaction whatever to any of the puddings or to corn oil. The other developed asthma one-half hour after eating the pudding that was made of arrowroot starch and contained no corn products. He showed no reaction to cornstarch. Furthermore, both remained well by simple avoidance of whole corn, along with appropriate control of inhalant factors. The patient who developed urticaria was under treatment for asthma, but the ingestion of corn had no effect upon this symptom. He showed a strongly positive scratch test to corn. One asthmatic gave a slightly positive skin test, while the other has never shown any reaction.

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We found 8 cases in which the only evidence of corn sensitivity was a positive skin test. In 7 of these, either by history or trial insufflation, it could be shown that the sensitivity was limited to corn when contacted as an inhalant, and there was no evidence of its activity as an ingestant.

On the basis of these few cases, one can draw no definite conclusions. As pointed out, our experience is limited to those patients having well-recognized allergic symptoms. Hence, we do not have referred to us for study many patients with symptoms such as gastrointestinal difficulties, muscular aching, uncomplicated fatigue, or headaches. However, within the borders of our territory, we find little evidence of corn sensitivity, and have never had a patient clinically sensitive to refined corn products. This is in agreement with our opinion regarding food allergy in general. Sensitivity to refined food products from any source does not present a clinical problem either from a diagnostic or therapeutic viewpoint. We concur heartily with Lee and Squier¹ in their stand that misguided and extreme measures of specific food avoidance are unnecessary.

REFERENCE

1. Lee, Howard J., and Squier, Theodore L.: Provocative Diets in the Recognition of Food Allergy, *J. A. M. A.* **142**: 318, 1950.