ALLERGY OF THE SALIVARY GLANDS

Report of a Case

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It is generally accepted that the clinical manifestations of hypersensitivity are numerous and diversified. To the typical allergic states of hay fever, bronchial asthma, perennial allergic rhinitis, and atopic eczema has been added a long list of phenomena less well understood, including certain cases of urticaria, some cases of migraine, many ocular problems, purpura, and a number of others. In such lists, however, allergy of the salivary glands receives scant attention. It is for that reason that the following case report is of interest and challenges admission to the family of allergic diseases.

Case Report

A white woman, aged 45, reported to the Department of Otolaryngology of Cleveland Clinic on March 12, 1946, with two complaints. For ten years nasal breathing had been difficult and was associated with frequent sneezing and profuse rhinorrhea. In addition, for the preceding four years she had experienced swelling followed by cramping pain around the angles of the jaw, relieved later by a discharge of foamy whitish material into her mouth. This frequently caused eating to be painful.

Nose and throat examination revealed large, pale, boggy turbinates bathed with mucus. No other significant findings were noted. The duct of either the submaxillary or the parotid glands had been dilated and probed previously with negative results.

A roentgenogram of the left parotid and submaxillary regions was taken revealing no evidence of calcification. In view of the history of allergy, the patient was advised to proceed with allergy studies.

Extensive questioning revealed additional evidence of hypersensitivity. The above nasal symptoms had continued more or less daily at all seasons but increased during the winter months. She had discovered that contact with dust, feathers, wool, and cigarette smoke produced these symptoms, as did several foods, including wheat.

About two years later the patient had developed generalized urticaria accompanied by angioneurotic edema of the eyelids and lips. Symptoms had persisted daily for ten months, then ceased. At intervals of several months since, however, she had had a few urticarial lesions, usually traceable to ingestion of chocolate, and on one occasion, cantaloupe.

In the past four years she had suffered recurring painful swellings about the angles of the jaw, both unilaterally and bilaterally. These recurred every week or two, lasting for two or three days. She could obtain some relief by massaging the swollen area, noting a discharge of "salty saliva" into her mouth. She had observed that eating of wheat, cheese, tomato, and chocolate produced such swellings and, in addition, nausea. These same foods aggravated her nasal symptoms.

The family history was positive for allergy. Her father had hay fever and asthma.

Physical examination disclosed some tenderness over each parotid gland but was otherwise negative except for the pale, swollen nasal mucous membranes typical of allergy. Routine urinalysis and blood counts were within normal limits.

Complete allergy investigation was carried out, using both scratch and intradermal methods of testing. Pollen reactions were quite negative. Intradermal tests for inhalants revealed strongly positive reactions to house dust and cotton, with positive reactions also to feathers, cat, dog, and horse dander, Pyrethrum, silk, tobacco, and Aspergillus mold. A questionable reaction was obtained to wool. Intradermal food tests were positive to chocolate, oat, buckwheat, barley, cherry, peas, several varieties of nuts, cabbage, cauliflower, mushroom, onion, hops, and several kinds of fish. Questionable reactions were obtained to wheat, cheese, tomato, and potato.

The patient was carefully instructed in the details of an allergy regime, avoiding all significant inhalant allergens as far as possible and the foods to which she reacted. Adequate, regular rest was advised. Hyposensitization was begun with a mixed antigen of dust, cotton, and molds, in a dilution of 1:10,000; a stock vaccine of stool, respiratory, and various pathogenic organisms in 1:1000 dilution was also given. She reported improved five weeks later, and the next strong dilution of each of the above was furnished with instructions to continue.

Two and a half months after institution of the allergy regime the patient reported excellent results and stated that so long as she adhered strictly to her diet she had no trouble with her glands. However, if she ate the foods that were not permitted, there was a recurrence of the swelling. She felt that dietary avoidance had been more important than the injections.

Discussion

Although the literature on allergy is already quite voluminous, a fairly careful survey reveals few references to allergy involving the salivary glands. In his comprehensive book Vaughan[1] fails to mention it, as do authors of several other large texts on allergy. Feinberg[2] indicates that "swelling and inflammation of the salivary glands, particularly the parotids, occurs occasionally in some individuals as a result of the administration of iodides". He registers some doubt as to whether or not this should be regarded as an allergic phenomenon, but states that the condition appears only in a small group and reappears every time iodine is administered. In a recent publication by the Staff of Cleveland Clinic[3] in which many uncommon manifestations of allergy are discussed, this problem is not mentioned.

Likewise, the ear, nose, and throat literature deals very cursorily with the subject, many authors failing to mention it. Jackson and Jackson[4] mention recurring swelling of the parotid and submaxillary glands, recognized as being associated at times with hay fever and perennial allergy of the nose and paranasal sinuses.

The case reported seems unquestionably due to an allergy involving the salivary glands, probably the parotids. An obstruction, such as a

stone in the duct or a growth, was excluded first by the otolaryngological department. The patient had a typical history and findings to substantiate a nasal allergy for many years. Urticaria had also recurred periodically for several years and could frequently be traced to ingestion of certain foods. The periodic swelling of the glands would likewise follow the eating of several foods and could be avoided later by careful adherence to an allergy diet and regime. They would recur when the diet was broken. In this case the family history of allergy formed another link in the presumptive diagnosis of allergy.

Conclusion

A case is reported of recurrent swelling of the salivary glands, probably the parotid glands, with the strongest presumptive evidence that allergy is the etiologic factor. Symptoms could be controlled by an allergy regime, especially avoidance of incriminated foods, and reproduced by ingestion of such foods.

It seems worth-while to reiterate that when a patient presents a problem difficult of diagnosis and has a positive personal history of allergy and/or a positive family history of allergy, consideration of allergy as the etiologic factor is strongly indicated.

References

1. Vaughan, W. T.: Practice of Allergy (St. Louis: C. V. Mosby Co., 1939).
2. Feinberg, S. M., and Durham, O. C.: Allergy in Practice (Chicago: The Year Book Publishers Inc., 1944).
3. Staff members of Cleveland Clinic: Allergy in Clinical Practice (Philadelphia: J. B. Lippincott Co., 1941).
4. Jackson, C., and Jackson, C. L.: Diseases of the Nose, Throat, and Ear, Including Bronchoscopy and Esophagoscopy (Philadelphia: W. B. Saunders Co., 1945).