

SKIN TEST SENSITIVITY TO ACACIA POLLEN IN BRAZIL

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A total of 36 patients with asthma and/or rhinitis were evaluated for the presence of allergy skin sensitivity to Acacia pollen in Brazil (eastern and southern regions). Only four patients showed mild intradermal skin test reactions to Acacia pollen extract (1,000 PNU/ml). Despite being largely distributed in those regions, Acacia pollen is not an important allergen involved in the pathogenesis of respiratory atopy in Brazil.

Introduction

RESPIRATORY ALLERGY in Brazil is commonly caused by inhalation of house dust and mite antigens. To verify the incidence of positive skin tests to Acacia pollen, a tree commonly found in Brazil, the present study was conducted in two different Brazilian cities, Rio de Janeiro in the east and Curitiba in the south of the country. To our knowledge no such study has been made previously.

Material and Methods

A total of 36 patients was evaluated: 20 patients in Rio de Janeiro and 16 patients in Curitiba. All patients attended private allergy clinics because of asthma and/or rhinitis.

The population seen in Rio de Janeiro had the following characteristics: 10 females and 10 males, ages ranging from two to 66 years with a mean of 25.7 years; all were Caucasians. Thirteen patients presented with perennial allergic rhinitis, 10 with extrinsic asthma, one with a mixed type of asthma and rhinitis, five with vasomotor rhinitis, one with intrinsic asthma, eight with allergic conjunctivitis and four with atopic dermatitis.

The population seen in Curitiba had the following characteristics: nine females and seven males, their ages ranging from seven to 33 years with a mean of 18.4 years; they were all Caucasians. Fifteen patients presented with perennial allergic rhinitis, one with seasonal allergic rhinitis, 11 with extrinsic asthma and two with atopic dermatitis.

All patients were tested intradermally with Acacia pollen extract (1,000 PNU/ml, Greer Laboratories, Le-

noir, North Carolina), with house dust extract (1:10 w/v, Greer Laboratories, Lenoir, North Carolina) and with *Dermatophagoides farinae* (1:2,000 w/v, Hollister-Stier Laboratories, Spokane, Washington).

Results

Of the 20 patients seen in Rio de Janeiro, only three showed positive skin tests to Acacia pollen. All had perennial allergic rhinitis and two had extrinsic asthma, atopic dermatitis and allergic conjunctivitis. Fifteen patients had positive skin tests to house dust and 14 patients had positive skin tests to mites. In only one patient was there no direct correlation between the positive or negative results of skin tests to both dust and mite allergens.

Of the 16 patients seen in Curitiba, only one had positive skin test to Acacia pollen. She had extrinsic asthma, perennial allergic rhinitis and atopic dermatitis. Fifteen patients had positive skin tests to both house dust and to mites. The correlation between them was excellent.

The single patient with grass hay fever did not demonstrate skin sensitivity to Acacia pollen.

Discussion

There are a number of varieties of Acacia, quite abundant along the eastern and southern states of Brazil, chiefly cultivated as ornamentals. They are insect-pollinated trees but eventually may shed large amounts of airborne pollen. In a tropical climate where different seasons are not distinct, some plants pollinate perennially.¹ Their frequent proximity to homes may account for occasional cases of pollinosis.² A recent review pointed out the importance of Acacia species as an incitant of pollinosis.³

A group of patients from different parts of the country

This observation was conducted at Drs. Geller's and Rosario's private clinics, respectively, in Rio de Janeiro and Curitiba, Brazil.

with respiratory allergy was examined for Acacia pollen sensitivity. Four patients (11.1%) showed weak responses to intradermal tests. When compared to house dust and mites this sensitivity indicated no clinical importance, regardless the allergenicity of Acacia pollen extract.

References

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3. Lewis WH and Vinay P: North American pollinosis due to insect-pollinated plants. *Ann Allerg* 42: 309, 1979.

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"... If I am right it will be a slow business for our people to reach rational views, assuming that we are allowed to work peaceably to that end. But as I grow older I grow calm. If I feel what are perhaps an old man's apprehensions, that competition from new races will cut deeper than working men's disputes and will test whether we can hang together and can fight, if I fear that we are running through the world's resources at a pace that we cannot keep; I do not lose my hopes. I do not pin my dreams for the future to my country or even to my race. I think it probable that civilization somehow will last as long as I care to look ahead-- perhaps with smaller numbers, but perhaps also bred to greatness and splendor by science..."

Oliver Wendell Holmes, Jr.
(From a talk to the Harvard Law School
Association--Feb. 15, 1913.)