

Airborne contact urticaria due to mulberry (*Morus alba*) pollen

F. J. MUÑOZ, J. DELGADO, J. L. PALMA, M. J. GIMÉNEZ, F. J. MONTESEIRÍN AND J. CONDE

Servicio de Alergología, Hospital Universitario Virgen Macarena, 41009 Sevilla, Spain

Key words: contact urticaria; airborne; mulberry; *Morus alba*; pollen; plants; respiratory effect. © Munksgaard, 1995.

The mulberry family (Moraceae) includes several genera of anemophilous (pollinated by means of wind) plants. Skin reactivity to red (*Morus rubra*) and white (*Morus alba*) mulberries and the paper mulberry (*Broussonetia papyrifera*) is strong; all 3 species have been implicated as local sources of pollinosis (1). Their pollen grains (diameter 14 to 20 μm) have often been underestimated in gravity slide samples.

Case Report

A 12-year-old boy developed, towards the end of February, itchy erythema and edema of the hands and neck, and angioedema of the lips and eyelids. Moreover, eye irritation, rhinitis, pharyngeal irritation and mild dyspnea were present. These symptoms appeared within 30 min of harvesting mulberry leaves, and wore off spontaneously 2 to 3 h later. He had a history of allergic asthma, rhinitis and conjunctivitis, due to hypersensitivity to olive and grass pollens, *D. pteronyssinus* and *D. farinae*; he also had chromate dermatitis.

A patch test to fresh mulberry leaves was negative, at both 30 min and 2 days. A prick test to an extract of *Morus alba* pollen (Ifidesa-Aristegui, Bilbao, Spain) was strongly positive. His total serum IgE was over 300 kU/l and his specific IgE to *Morus alba* pollen (CAP System, Pharmacia), 3.02 kU/l.

Discussion

Contact urticaria has been classified as non-immunologic, immunologic and of uncertain etiology (2–5). Reports of airborne contact urticaria due to mulberry pollen have not been found. In our patient, the positive prick test and specific IgE make us think that there must be an immunologic mechanism. On the other hand, in our environment, the mulberry pollen season extends from February to May and pollen grains are actively released in large amounts. A negative patch test to fresh mulberry leaves, and no reaction to harvesting the leaves outside the pollen season, lead us suspect that *Morus alba* pollen is responsible for the airborne contact urticaria in this case.

References

1. Middleton E, Ellis C E, Adkinson N F, Yunginger J W. *Allergy: principles and practice*. St. Louis, Missouri: The C. V. Mosby Company, 1988: 332.
2. Odom R B, Maibach H I. Contact urticaria: A different contact dermatitis. *Cutis* 1976; 18: 672–676.
3. Krog G, Maibach H I. The contact urticaria syndrome: an updated review. *J Am Acad Dermatol* 1981; 5: 328–342.
4. Fernández Rivas M, Quirce S, Hinojosa M. Síndrome de urticaria de contacto. *Rev Esp Alergol Immunol Clin* 1990; 5: 107–117.
5. Dooms-Goossens A, Deleu H. Airborne contact dermatitis: an update. *Contact Dermatitis* 1991; 25: 211–217.

Pesticide patch testing: California nursery workers and controls

M. O.'MALLEY¹, P. RODRIGUEZ² AND H. I. MAIBACH³

¹Division of Occupational & Environmental Medicine, University of California, Davis, USA

²California Department of Pesticide Regulation, 1020 N Street, Sacramento, California 95814, USA

³Department of Dermatology, University of California, San Francisco, California 94143-0989, USA

Key words: pesticides; occupational; horticulture; agriculture; patch testing technique; allergic contact dermatitis; sulfur; pentachloronitrobenzene; chlorpyrifos; acephate. © Munksgaard, 1995.

Nursery workers have previously been identified as a group at high risk for occupational skin disease among the subgroups of California agricultural workers (1). As a beginning attempt to define the portion of skin disease in this population due to allergic contact dermatitis, patch testing was performed in 21 occupationally unexposed controls and 39 occupationally exposed subjects. 1 additional subject was interviewed but did not complete patch testing and 1 underwent testing to chloro-

thalonil only. Materials tested were those reported most frequently as suspected causes of dermatitis in California nursery workers (Table 1) during the years 1982–89 and not available as patch tests from commercial sources. In addition, inorganic sulfur was tested because of its overall frequency as a reported source of skin disease in California agricultural workers (2). 2 additional materials, dichloronitroaniline (DCNA) and pentachloronitrobenzene (PCNB), were also included because of their