

Immediate hypersensitivity reaction to date

THE DATE is the fruit of the date palm (*Phoenix dactylifera*), which belongs to the Arecaceae (Palmae) family, like the coconut. It is widely distributed in frost-free regions, as in the Mediterranean area, where it is consumed frequently. To our knowledge, no case of date allergy has been described. In the present paper we report one patient with an IgE-mediated hypersensitivity reaction to date.

■ A 65-year-old man, without a previous history of atopy, experienced pharyngeal pruritus, edema of the lips, dyspnea, wheezing, dysphagia, and dysphonia a few minutes after eating some dates. Physical examination showed edema of the uvula and anterior pillars. Immediate treatment with subcutaneous epinephrine, and intravenous dexchlorpheniramine and methylprednisolone resulted in a noticeable improvement after 2–3 h, enabling the patient to be discharged 12 h later.

This is the first case of IgE-mediated hypersensitivity to date demonstrated by prick tests and histamine release. Other fruits of the same family were well tolerated by the patient.

Previous ingestion of dates had been well tolerated. After the reaction, the patient ate coconut without problems.

■ Crushed dates without seeds were extracted at 20% w/v by shaking for 1 h at room temperature in ammonium bicarbonate 50 mM, pH 8, followed by 30-min, 10°C, centrifugation at 20 000 g. The supernatant was filtered, dialyzed against water, lyophilized, and stored at 4°C until use. Protein content in the extract measured by the method of Lowry et al. was 0.75 mg/ml (1).

■ Skin prick tests were performed with common inhalant allergens (mites, pollens, molds, and epithelia) and food allergens (egg, milk, cereals, fish, seafood, meat, nuts, fruits, and vegetables) with commercial extracts (Abelló ALK, Madrid, Spain). The same procedure was carried out with our date extract reconstituted to 10 mg/ml in PBS-glycerol and by prick-prick with a fresh date and coconut.

The extracts were applied to the patient's forearm. Saline was used as a negative control and 10 mg/ml phosphate histamine as a positive control. Results were read after 15 min. Reactions were considered to be positive if the largest diameter of the wheal was ≥ 3 mm over the negative control.

■ Total serum IgE was determined by the ALASTAT method (DPC, Los Angeles, CA, USA) following the manufacturer's instructions. Allergen-specific IgE against date extract was determined by RAST according to the method described by De Filippi et al. (2). As allergen support, paper disks activated with CNBr were used. The activated disks were coated with the antigen by the method of Ceska et al. (3). Histamine release was carried out by an automated fluorometric method. Six 10-fold dilutions of the date extract were tested from 1/10 to 1/10⁶ (4). SDS-PAGE was performed in acrylamide minigels (12% acrylamide-resolving and 4% stacking) by the discontinuous system described by Laemmli (5). Specific IgE detection by immunoblotting was performed after transfer by a diffusion method (6).

■ Skin prick tests with common aeroallergens and food allergens and coconut prick-prick were all negative, but they proved positive with fresh date (prick by prick) and our date extract (wheal of 5 × 6 mm and 4 × 5 mm, respectively). The same tests were negative in 10 control patients. Total IgE was normal (62 IU/ml). Histamine release to date was positive at dilutions up to 1/10⁶. Specific IgE against date could not be detected in the patient's serum by RAST. SDS-PAGE of the date extract did not reveal the presence of any protein band, and no specific IgE was detected by immunoblotting.

■ Negative results of RAST could be explained by the limitations of this procedure related to the quality of the allergen extract and the fixation of all the pertinent allergenic components of the extract to the solid supports. With regard to SDS-PAGE results, it is known that this technique may denature some proteins and destroy the allergenicity of certain allergens.

■ However, specific IgE to date allergens has been demonstrated by prick tests and histamine release. Therefore, the case of this patient is the first one reported of IgE-mediated hypersensitivity to date. Other fruits of the same family such as coconut were well tolerated by the patient.

Key words: Arecaceae; date; food allergy; hypersensitivity; IgE; Palmae.

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Ciprofloxacin-induced vasculitis

THE fluoroquinolones are a new generation of drugs that possess pharmacologic and microbiologic properties that make them suitable for the treatment of systemic infections (1). Ciprofloxacin, a fluoroquinolone antibiotic, has a broad spectrum of activity against Gram-negative and many Gram-positive bacteria, and has become one of the most frequently prescribed oral antibiotics (2).

Ciprofloxacin is generally well tolerated. Schacht & Arcieri (3) found an overall incidence of adverse drug reactions of 10%. Most of them were regarded as mild to moderate in severity, and included nausea and vomiting, elevated transaminases, dizziness, headache, nervousness/anxiety, eosinophilia, rash, pruritus, and arthralgia. Among the most severe reactions were central nervous system affection and skin reactions (rash, erythema, urticaria).

■ We report the case of an infrequent ciprofloxacin adverse effect diagnosed by oral challenge test.

A 61-year-old woman without personal or familial atopic antecedents was seen in our outpatient clinic. She had a probable autoimmune disorder: systemic erythematous lupus or primary antiphospholipid syndrome. For otitis, she was given ciprofloxacin (1 g/day) for 20 days, with tolerance. As her otical disorder showed no improvement, she

received ceftriaxone i.m. (1 g/day) for 4 days. After 2 days without any drug, she took 500 mg ciprofloxacin; 90 min later, she presented with malaise, dizziness, disseminated pruritus, arthralgia, articular swelling, and fever. With the patient's informed consent, we performed the following study.

■ Skin prick and intradermal tests were performed with penicilloyl polylysine (PPL), minor determinant mixture (MDM), and benzylpenicillin, with a negative reading after up to 20 min. Prick tests with ceftriaxone (250 mg/ml) and ciprofloxacin (750 mg/ml) were also negative. We then performed a single-blind, placebo-controlled parenteral challenge with up to 1 g ceftriaxone; it was negative. Single-blind, placebo-controlled oral challenge with ciprofloxacin (375 mg) evoked articular swelling, fever, and purpuric lesions with "sock-like" distribution in both legs 30 min later. But for lesions, physical examination was normal. Hematologic, biochemical, and urine tests; blood and urine cultures; thorax radiography; a-DNA; and C3 were normal; C1q, C4, CH100, ANA, and immunoglobulins were similar to the previous patient's values. Skin biopsy showed intense dermal purpura, perivascular lymphocytic and polymorphonuclear (PMN) infiltrate, and leukocytoclasia.

The lesions disappeared 1 week later without any treatment.

Adverse cutaneous reactions of from 1 to 7.5% have been reported for ciprofloxacin (4, 5). The most frequent are pruritus, erythema, photosensitivity (2, 4), and urticaria (6). Cutaneous vasculitis induced by ciprofloxacin is rare. In 1989, the case of a 74-year-old man who had vasculitis, arthritis, and other signs of systemic illness such as hepatic affection, and diminished mental state, after treatment with

The diagnosis in this case was supported by positive oral challenge tests and histologic examination.

ciprofloxacin was reported (6). Later, another case of leukocytoclastic vasculitis was reported in a patient receiving, at the same time, cephalosporin and ciprofloxacin. It resolved after both drugs had been discontinued; therefore, it is not possible to assert that quinolone was the only drug responsible (4). Although ciprofloxacin is not routinely recommended in childhood, a purpuric eruption has been reported in an 18-month-old boy with *Staphylococcus epidermidis* and *Klebsiella pneumoniae* infection (8).

In conclusion, we report a case of ciprofloxacin-induced cutaneous vasculitis. The diagnosis was

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