

In a study of 15 patients allergic to pomegranate, 13 had sensitivity to pollens, 10 to nuts, and eight to peach (2). The three patients of the present study were also sensitized to pollens, mites, fruits, and nuts. Patient 3 is particularly interesting owing to the early onset of her sensitization and because her mother stated that she had never previously ingested pomegranate. Nevertheless, her mother had frequently eaten this fruit while breast-feeding her daughter. In this case, maternal milk could have been the source of the child's sensitization. Patient 2 had a negative RAST despite her clinical history and the presence of the 29-kDa band in the blot. Perhaps IgE against pomegranate extract could have been detected by a more sensitive method of specific IgE detection, such as the CAP System. SDS-PAGE immunoblotting showed a low-molecular-weight protein (29 kDa) that bound IgE in the sera of the three patients, as detected by image analysis. To our knowledge, this is the first report of an allergen involved in pomegranate allergy. All three patients suffered multisystemic reactions after the ingestion of pomegranate. Type I hypersensitivity was strongly suggested by the positivity of the skin prick test and demonstration of specific IgE antibodies to pomegranate in patient sera. The presence of specific IgE that recognizes epitopes present in a 29-kDa protein confirmed this hypersensitivity. Pomegranate should be considered a potential allergen in patients suffering anaphylaxis in autumn and living in countries where this fruit is consumed.

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Anaphylactic reactions to buflomedil

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Key words: anaphylactic reaction; buflomedil.

● BUFLOMEDIL chlorhydrate (BC), a hemorheologic drug used in a wide range of dermatoses (1), exerts a peripheral vasodilatory action, increases perfusion to impaired vascular beds of the microcirculation, and increases arterial perfusion with minimal effects on central hemodynamics (2). BC increases intracellular levels of cAMP, secondary to adenylate cyclase stimulation. The efficacy of BC in reducing the mean daily frequency and severity of winter ischemic attacks has been demonstrated (3). Here we report a case of anaphylactic reaction to BC in which clinical evaluation and positive skin prick test (SPT) suggest an IgE-mediated hypersensitivity mechanism.

A 53-year-old woman treated for Raynaud's phenomenon developed urticarial rash,

systemic pruritus, and hypotension 10 min after parenteral administration of BC. She did not lose consciousness. The patient was treated with corticosteroids and had a remission within 6 h. Six months after the occurrence of the adverse reaction, the patient was admitted to our ward for further investigation. There was no family or personal atopic history. Total IgE was 104 kU/l, and specific IgE to inhalants or food allergens was negative. Concentrations used for skin testing had been previously established in a negative group of three subjects in order to rule out irritant responses. Skin test with BC dissolved in water at concentrations of 0.001, 0.01, 0.1, and 1 mg/ml was performed. Intradermal tests were carried out at the same concentration. The positive and negative tests were histamine and saline solution, respectively. An immediate positive response was obtained at concentration levels of 1 mg for SPT (wheal 4×4 mm, flare 6×8) and at 0.1 mg/ml for the intradermal skin test (wheal 7×8 mm, flare 13×11 mm). Our patient was challenged with another hemorheologic drug (pentoxifylline). A therapeutic dose of 100 mg was well tolerated.

Patients with allergic or pseudoallergic reactions resulting from BC therapy have never been described in the literature.

In conclusion, we report a case of anaphylaxis caused by BC. The positive skin test response suggests a type-1 immunologic hypersensitivity mechanism.

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Occupational asthma to diacrylate

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Key words: acrylates; asthma; cross-reactions; cyanoacrylates; methacrylates; occupational diseases.

● ACRYLIC compounds are used increasingly in various industries (paints and coatings, adhesives, printing inks, plastic glass) and health professions (dental prostheses and fillings, bone cement in orthopedic, histologic preparations, soft contact lenses), as well as in home repairs and hobbies

(instant glues). Skin sensitization and irritation of mucous membranes are well known properties of these compounds. Since 1985, several cases of occupational asthma (OA) to methacrylate (MA) and cyanoacrylate (CA) have been described, as reviewed (1). The mechanism of sensitization is not known.

We report for the first time, to our knowledge, OA to a diacrylate, without evidence of bronchial cross-reactivity with CA and MA.

A 44-year-old man started work in an auto body shop in January 1997. At work, he used a primer containing ethoxylated-(2)-bisphenol-*a*-diacrylate and additives. After 3 months, he progressively developed nasal congestion, sneezing, and rhinorrhea, followed by chest tightness, dyspnea, cough, and wheezing a few weeks later. Symptoms started after 2 h at work and often caused nocturnal awakenings. They improved after he started taking

antihistamines and began to wear a mask at work. When he interrupted his work for 2 months after minor surgery, he became asymptomatic, but his symptoms returned soon after returning to work. The patient stopped working in August 1997 and again became asymptomatic. He had no previous history of rhinitis or asthma but had a smoking history of seven pack-years, having stopped 11 years earlier.

We first examined him in October 1997. Skin prick tests with 22 common inhalants were all negative with a positive histamine control. FEV₁ was 3.28 l (107% predicted) and FVC 4.03 l (107% predicted) (2); methacholine bronchial responsiveness was normal (PC₂₀M=29 mg/ml) (3). In November 1997, specific inhalation challenges (SIC) were carried out according to a standardized procedure (4). On a control day, the patient was exposed to a nebulized diluent (a commercial mixture of polyols) for a total of 30 min. No significant change in FEV₁ occurred in the following 8 h; PC₂₀M at the end of the day was >128 mg/ml. Exposure to diacrylate was done by nebulizing it in a challenge room for progressively increasing periods of time on subsequent days (total of 4,

A nonatopic patient showed positive inhalation challenge to ethoxylated-(2)-bisphenol-*a*-diacrylate but no cross-reactivity with metha- and cyanoacrylate.

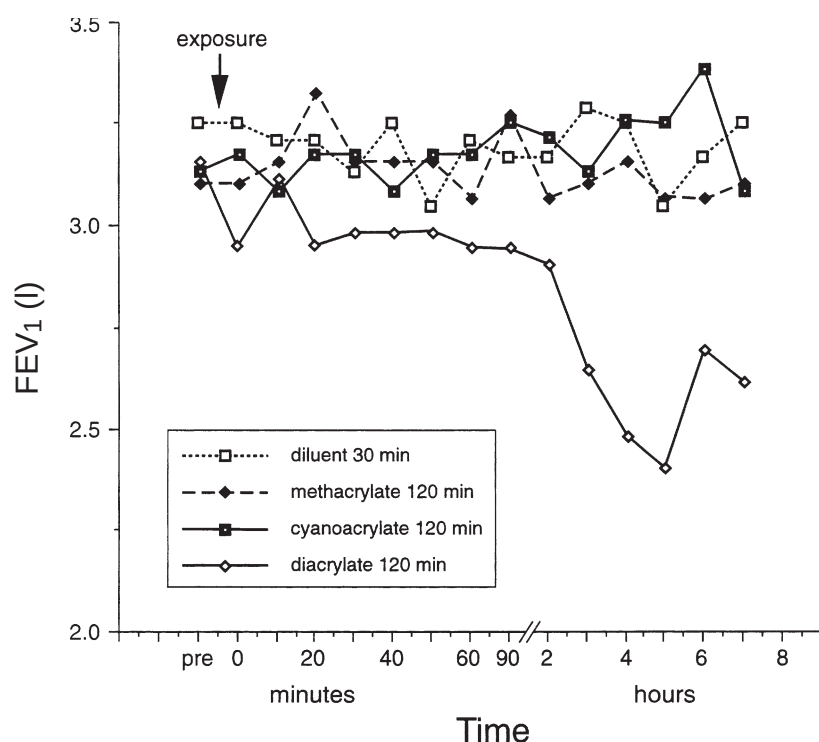


Figure 1. Results of specific inhalation challenge tests.