

Occupational allergic contact dermatitis and anaphylaxis from rubber latex

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Since Nutter (1) described the first case of contact urticaria from rubber gloves in a housewife, there have been further reports in hospital staff using rubber surgical gloves (2-6). Köpman & Hannuksela (7) first suggested an IgE-mediated mechanism. Meding & Fregert (3) thought that the cause was probably a soluble protein. Frosch et al. (8) found IgE-type circulating antibodies to both natural latex and vulcanized rubber gloves. Carrillo et al. (9) demonstrated specific IgE antibodies to the latex antigen, considered to be a protein with a MW of 10,000 to 30,000 Daltons. Axelsson et al. (10) confirmed this hypothesis. Turjanmaa et al. (11, 12) observed a high frequency of latex allergy in operating units.

Anaphylactoid reactions can occur when individuals with immediate allergy to latex undergo surgery and/or require exploratory manipulation or treatment involving latex products such as tubes, catheters and gloves (13). By radioimmunoassay, Turjanmaa et al. (14) found specific IgE antibodies to latex in 2 patients with anaphylactoid reactions during surgery. Attention was drawn to this as a cause of anaphylactic reactions during anaesthesia. Morales et al. (15) reported a case of immediate anaphylactic reaction on intubation for general anaesthesia. The patient had experienced previous urticarial episodes and an immediate reaction on the lips when blowing up a rubber balloon. Axelsson et al. (10) published a case that coincided with a gynaecological exploration. Pecquet et al. (13) reported 17 cases of immediate allergic reaction to natural latex: 12 had an anaphylactic reaction during surgery.

Case Report

A 71-year-old patient first attended our clinic in February 1973. He was then 54 years old and had worked for 20 years in the building industry. He had a 1-year history of eczema on his hands and feet. Sensitization to chromate was detected. He was classified as permanently unfit for work in 1974. On further patch testing, persistence of his sensitization to chromate and additional sensitization to rubber compounds (thiurams, carbamates and mercaptobenzothiazole) were observed. There were no immediate or urticarial reactions noted.

In 1981, he was admitted to the urology service of a Madrid hospital with symptoms of prostatism and acute urinary retention requiring a vesical catheterization. On insertion of a Foley catheter, he developed anaphylactic shock. This was considered to be an anaphylactic reaction to rubber latex, which was confirmed this year. Liberation of histamine with latex was positive. RAST to latex was 12.2 PRU/ml (positive class 3). Total IgE was 592 Ku/l.

Comment

We consider it extremely important to be aware of possible anaphylactic reactions to rubber latex in surgical or emergency situations.

In most cases of contact urticaria to latex, there is a history of atopy and, in some cases, a previous history of urticarial reactions, which make an immunologic reaction to latex foreseeable. This could, in 'cold' cases, be further evaluated by RAST prior to surgery. Type IV allergic reaction to the rubber compounds and urticaria from rubber latex is a rare association (16).

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Allergic contact hand dermatitis from hydrangea: report of a 10th case

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Key words: allergic contact dermatitis; hydrangea; hydrangenol; kalanchoe; plants; patch testing technique; occupational.

Contact allergy to hortensia (hydrangea) was until recently almost unknown (1-7).

also advised to wear protective gloves during his work.

Care Report

A 28-year-old man, with a previous history of asthma, was referred with persistent hand dermatitis. He had been a professional gardener for 10 years, his hand dermatitis predating presentation by more than 2 years. The condition cleared during annual vacations and recurred on return to work. Examination revealed chronic hand dermatitis with scaly erythema and painful fissures on the tips of his fingers.

He was patch tested with the European standard series, rubber gloves, betamethasone valerate cream and all the plants with which he worked: begonia, azalea, kalanchoe and hortensia. The following positive reactions were found: colophony (+ at 2 and 4 days), the leaf of kalanchoe (+ at 2 and 4 days) and the leaf and flower of hortensia (both +++ at 2 and 4 days). After approximately 1 month, the patient was patch tested with hydrangenol 0.1% pet. This gave a positive ++ reaction at both 2 and 4 days.

The patient was successfully treated with topical corticosteroids and, later, tar preparations. He was

Comment

The family Hydrangeaceae comprises 25 species of which 2, *Hydrangea macrophylla* and *Seringe* subspecies *macrophylla*, are the most popular in The Netherlands (5). The responsible allergen in hortensia was isolated in 1982 (2) and identified as hydrangenol (8). However, it may be absent from some hydrangea varieties (9). Hydrangenol seems to be a weak allergen, requiring prolonged contact before contact dermatitis is eventually evoked. Contact sensitivity to hortensia (hydrangea) is therefore exclusively found in people exposed to the plant either occupationally or as hobby gardeners. There are no known cross-reactions to other plants (5) and the skin of the hands is regarded as the site of predilection. These features and the lack of an airborne component allow, in most patients, the safe continuation of their occupational activities as gardeners, provided appropriate protection of the hands is used (6, 7).

Our patient showed, besides the clear sensitivity to hortensia, a weak positive reaction to kalanchoe. As far as we know, there is only one brief mention

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