

eczema at the application area (forearm), with extension to the neck and face. Patch tests to components of this varnish were undertaken in May 1996. They showed contact sensitivity to nitrocellulose when tested in the solvent at the same concentration as used in the varnish, as well as when diluted 2× (50%) or 10× (10%) in the same solvent. 2 different solvents were used.

Solvent A: mixture of ethyl/butyl acetate (88.7%) and isopropyl alcohol (11.3%).

Solvent B: mixture of ethyl/butyl acetate (49.45%), toluene (41.35%), isopropyl alcohol (8.1%) and diacetone alcohol (1.1%).

The concentration of nitrocellulose in these different products varied from 1.1% to 13.3%. Patch tests to nitrocellulose at the concentration used in varnish or at 50% were positive in every case, only 1/2 being positive when diluted to 10%. Solvents, as well as their components, were tested on our patient and showed no reaction. In the same solvents and at the same 3 concentrations, the nitrocellulose component was then tested on more than 100 control subjects and did not elicit any reactions.

Discussion

Nitrocellulose (or tetranitrocellulose used in varnishes or pyroxilin) was reported in 1944 (2) as a potential allergen in nail varnishes. Nevertheless, authors could not totally eliminate the irritant character of the prod-

ucts used in the patch tests at this time. In our study, the purity of nitrocellulose was assessed by chromatography and this did not detect triphenyl phosphate, a potential irritant contaminant. Adams & Maibach (3) published a survey of the American experience of contact allergy to cosmetics over 5 years (1977–1983). Only 1 case of allergy to nitrocellulose is mentioned among 13,126 patients with contact sensitivity. No other case has previously been reported to our knowledge (4). It therefore seems that this contact sensitivity is very rare, but as nitrocellulose is very rarely tested as a potential allergen in practice, it would be appropriate to test it at 10% in isopropyl alcohol in cases of suspected allergy to nail varnish, particularly when patch testing with toluenesulfonamide-formaldehyde resin is negative.

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Airborne contact dermatitis from propacetamol

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Case Report

A nurse aged 54 years described, for 1 year, acute dermatitis when she prepared injections of cephalexime, fosfomycin and Pro-Dafalgan® (propacetamol chlorhydrate diluted in sodium citrate) (UPSA laboratory, France). She had a history of rhinitis from grass pollen and mites, but no history of urticaria or eczema. The first manifestation was an acute edema of her face occurring 2 h after handling these drugs. Then she reported rashes with erythematous, pruritic and micropapular lesions, affecting the face, neck and forearms. Each eruption persisted for a few days and then spontaneously disappeared. She did not have allergy to paracetamol and always wore latex gloves for handling drug injections.

Patch tests with cephalexime (50% aq.), fosfomycin (50% aq.) and Pro-Dafalgan® (pure) were performed. At D2, a strong positive response was observed with Pro-Dafalgan®. Further patch tests were performed with propacetamol chlorhydrate (50% aq.), sodium citrate (50% aq.) and paracetamol (50% aq.). At D2, only propacetamol was positive. Prick tests with latex were also performed and were negative. 10 control patients were tested (propacetamol chlorhydrate, paracetamol, sodium citrate) with negative results. The patient stopped handling Pro-Dafalgan®. Nevertheless, she still had allergic cutaneous manifestations when her colleagues prepared injections of Pro-Dafalgan® in her presence. All the lesions recovered when she stopped work in the surgical unit and found a new job in a medical unit where no injections were prepared.

Comment

Paracetamol (acetaminophen) is a widely used analgesic and antipyretic, to which adverse reactions seem to be rare (1,2), though urticaria, fixed drug eruption, vascular purpura, hypersensitivity resembling Kawasaki syndrome, pruritus and flushing have all been reported after parenteral or oral prescriptions.

Propacetamol is the injectable form of acetaminophen. It is a diethylglycidyl ester of paracetamol that can easily be solubilized. After intravenous administration of propacetamol, this prodrug is hydrolyzed by nonspecific esterases into paracetamol within 10 min (3, 4). Side-effects of propacetamol had been limited to allergic rashes and urticaria after parenteral injections, until Barbaud et al. (5) reported contact dermatitis in 3 nurses who prepared injections of Pro-Dafalgan®. These nurses did not have allergy to paracetamol. They had eczema limited to the hands and the eruption disappeared when they wore gloves. Sczurko et al. (6) also reported 4 cases of occupational contact sensitivity.

Our case is quite different because the eruption was not limited to direct contact with propacetamol, but was an airborne dermatitis. The patient did not have eczema on her hands because she wore latex gloves. For the preparation of Pro-Dafalgan®, a water solvent containing sodium citrate is injected into a pressurized flask containing propacetamol powder. The pressurization of the flask is probably responsible for the projection of very small particles of propacetamol powder into the air and thus for the airborne sensitization of our patient. Many others drugs, such as penicillin, cephalosporin, omeprazole, ranitidine, levopromazine, propanolol and oxprenolol, can induce airborne contact dermatitis (7–

10). Occupational dermatitis mainly affects pharmaceutical workers. More rarely, nurses are affected.

To our knowledge, this is the 1st report of airborne contact allergy to propacetamol.

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Allergic contact dermatitis from black cumin (*Nigella sativa*) oil after topical use

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Essential oils are increasingly being used in Germany for both topical and systemic treatment of various diseases. Both allergic (1) and irritant contact dermatitis (2) have been described following the therapeutic use of essential oils.

Case Report

A 28-year-old man, with no history of allergic or atopic skin disease, presented with a 2-day history of maculopapular eczema, beginning on the neck and spreading to

the arms and back, which cleared with 14 days topical corticosteroid treatment. He reported that he had used topically pure oil of black cumin (*Nigella sativa*), marketed as helpful for "disorders of skin function, inflammation, acne, eczema, scabies, blunt trauma, skin mycosis, hematoma, neurodermatitis and psoriasis", and a herbal liquid called "Schwedenkreuther" (Swedish herbs), whose contents could not be determined. These 2 herbal remedies had been applied to the neck over a period of 3 months for a sore throat.

Patch testing with DKG standard series, black cumin

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