

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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Key words: black cumin; *Nigella sativa*; essential oils; allergic contact dermatitis; herbal remedies. © Munksgaard, 1997.

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

oil and "Schwedenkreuther", the latter diluted 1:10 and 1:50 in olive oil, revealed +++ reactions only to black cumin oil. Due to the known irritant potential of essential oils (2), patch testing with black cumin oil was repeated in dilutions of 1:100 and 1:200, resulting again in +++ reactions. Black cumin oil diluted 1:200 was subsequently patch tested in 10 controls without any reactions.

Discussion

The plant *Nigella sativa*, also known as black cumin, belongs to the family Ranunculaceae. Its seeds are used as a spice and an essential oil can be extracted from them. Another member of the Ranunculaceae is *Clematis vitalba*, a decorative garden plant, which has been reported to cause irritant contact dermatitis (3). Earlier reports of allergic contact dermatitis from essential oils concerned cosmetics and perfumes (4); later reports have

focussed on the use of essential oils as herbal remedies (1,5). To our knowledge, this is the 1st report of allergic contact dermatitis from topical black cumin (*Nigella sativa*) oil.

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Multiple sources of allergic contact dermatitis from parabens

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Key words: allergic contact dermatitis; cosmetics; parabens; medicaments; play gel; children; preservatives. © Munksgaard, 1997.

Case Report

A 14-year-old atopic girl (hyperactive bronchi) presented with a 5-year history of recurrent eczema on the palms and between the fingers. The eruptions always commenced with acute vesiculation and severe itching, followed by desquamation after about a fortnight. The first had occurred after she had handled a play gel "Slimy", which she manipulated with the palms of the hands.

Patch testing elsewhere in 1991 with the European standard series had been positive to nickel sulfate and paraben mix. Testing with the "Slimy" play gel on the upper arm for 2 days had provoked an erythematous, infiltrated reaction. Inquiries about the qualitative composition of the play gel had not revealed the causative allergen at that time. When she had suffered relapses after contact with water paints, dyeing agents were suspected. However, twice it appeared that parabens in topical medicaments and in a sunscreen were responsible.

She consulted us in 1996, and patch testing was performed with the European standard series, dyes (Disperse Orange 3, Disperse Yellow 3, Disperse Blue 35, Disperse Blue 106 and para-aminoazobenzene), and ingredients of the topical products used. Paraben mix (+) and nickel sulfate (++) were both positive after 2 and 4 days. The dyes and the ingredients of the topical preparations remained negative. Inquiries of the manufacturer as to the qualitative composition of the play gel were more successful this time and revealed the presence

of methyl- and propylparaben, along with diazolidinylurea, as preservatives. We then provided the patient with lists of parabens-free cosmetics and contraindicated topical medicaments.

In spite of this, the patient consulted us 1 week later with an acute vesicular dermatitis after washing her hands with a liquid soap (Sebamed) that was not mentioned on the lists but contained parabens.

Comment

Methyl- and propylparaben are present in many cosmetics and medicaments. Sensitization is found in about 1% of patch-tested patients, particularly in those with leg ulcers and stasis dermatitis. Parabens rarely cause sensitization in healthy, undamaged skin and are therefore considered particularly safe in cosmetics (1-3). Their increased use, in order to replace more sensitizing preservatives (4), might make it difficult to find suitable alternative cosmetics for the parabens-sensitive patient. To the best of our knowledge, no previous case of a contact allergy to parabens in a play gel has been reported.

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