

Eczematous-like drug eruption induced by synergistins

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The authors report 4 cases of eczematous-like drug eruption after oral ingestion of synergistins, pristinamycin (3 cases) and virginiamycin (1 case). The lesions occurred after contact sensitization with topical virginiamycin. The clinical symptoms appeared a few hours after ingestion: a generalized maculopapular eruption, sometimes with general symptoms of anaphylactic reaction. Eczema appeared again on initial areas of contact dermatitis. There is a common allergenic group between these 2 antibiotics, which is a macrocyclic lactone. Physiopathology of this drug eruption is not clear: allergic reaction of the delayed type or anaphylactic reaction. Patients allergic to virginiamycin should be strongly cautioned against oral pristinamycin.

Key words: virginiamycin; pristinamycin; drug reactions; systemic contact dermatitis; antibiotics; synergistins, positive patch test; macrocyclic lactone. © Munksgaard, 1996.

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Contact dermatitis from virginiamycin has been known for 20 years (1). More recently, eczematous drug eruptions have been described after oral reinroduction of the allergen (2). We report 4 cases of systemic contact dermatitis due to synergistins, occurring in patients who had previously been sensitized to topical virginiamycin.

Patients and Methods

Patient no. 1

A 46-year-old atopic man presented with a left eyelid stye; he was treated with an ointment containing virginiamycin, polymyxin B sulfate and dexamethasone (Stapolidex[®], SKF). After 1 week's treatment, an impetiginized eczema appeared on the left cheek. Oral pristinamycin (Pyostacine[®], Specia) was prescribed. After 3 days of oral Pyostacine[®], he developed a generalised maculovesicular erythema with fever (38°C) and rigors. With topical corticosteroids, the eruption healed within 8 days.

Patient no. 2

A 25-year-old atopic woman had presented with contact dermatitis from virginiamycin (Staphylomycine[®] ointment, SKF). A few years later, she developed a bilateral otitis associated with eczema

of the external auditory meatus. She was treated with eardrops containing oxytetracycline, polymyxin, dexamethasone and nystatin (Auricularum[®], Serolam) and an auricular solution containing rifamycin (Otofa[®], Bouchara); secondarily, oral pristinamycin (Pyostacine[®]) was added. Eczema on the ears rapidly increased, and facial edema and generalized erythema appeared. She also developed low blood pressure, fever (39°C), arthralgia and myalgia. With topical corticosteroids, all the symptoms disappeared.

Patient no. 3

A 23-year-old woman had presented in 1991 with a facial contact dermatitis from virginiamycin (Staphylomycine[®] ointment). In 1994, she applied fucidic acid ointment (Fucidine[®] cream, Leo) on a chin furuncle and took oral pristinamycin (Pyostacine[®]). 24 h later, facial edema, erythema of the trunk, fever and headache appeared. The lesions disappeared after cessation of oral pristinamycin.

Patient no. 4

A 52-year-old man was applying topical virginiamycin (Staphylomycine[®] ointment) on eczema of the hands and legs. As the lesions spread, his doctor prescribed oral virginiamycin (Staphylomyci-

ne[®]). Bullous eczema rapidly appeared on the hands and elbows, together with facial edema, pruritus and generalized erythema. With topical corticosteroids, the lesions cleared within 15 days.

Testing procedure

Patch tests were performed with Trolab materials a long time after the eczematous skin symptoms had cleared. The European standard series, Staphylomycin[®] ointment (0.5% virginiamycin) and Pyostacine[®] (1 tablet crushed in 1 ml water) were tested.

Results

Patient nos. 2 and 3 had positive (++) patch tests to virginiamycin and pristinamycin. Patient nos. 1 and 4 had positive (+++ and ++, respectively) patch tests to virginiamycin but were not tested to pristinamycin. Patient no. 2 had positive patch tests to rifamycin and nickel. All control subjects (pristinamycin: 10 subjects; virginiamycin: 30 subjects) were negative.

Discussion

There have been no recent reports in English of allergy to oral pristinamycin after contact sensitization to virginiamycin (1, 3, 4). Systemic sensitization has been reported (5–6) and also occupational (7). Our patients developed the same clinical symptoms after gastrointestinal absorption of pristinamycin or virginiamycin: a generalized maculopapular eruption, sometimes with general symptoms of anaphylactic reaction; eczema appeared again on the areas of initial contact dermatitis. Patient nos. 2 and 3 knew that they had had contact dermatitis from virginiamycin ointment. All the patients had used this ointment more-or-less recently.

There is a common allergenic group between these 2 synergistins (4). These antibiotics are composed of 2 major components: the main factor, or factor M, for virginiamycin and factor IIA for pristinamycin, mainly active against staphylococci; the 2nd component, factor S for virginiamycin and factor IA for pristinamycin, has a potentiating effect on the antibiotic activity of the 1st component.

The main fraction (M or IIA) is the same macrocyclic lactone in the 2 antibiotics and appears to be the sensitizer. Unfortunately, we were unable to test factor M and IIA of these antibiotics.

The pathophysiology of this drug eruption is unclear: it may be a combination of different allergic reactions. Some facts are in favour of a reaction of the delayed type: eczematous lesions, hematogenous spread after initial contact sensitization, and positivity of patch tests on delayed reading (2–5). Others are in favour of an anaphylactic reaction: occurrence of clinical symptoms a few hours after ingestion, general malaise, and edematous skin lesions. Baës (4) reported a case of urticaria from virginiamycin, and Mathivon (6) a positive degranulation test to pristinamycin. The patch test is very important because it confirms the diagnosis. It is one of the few drug eruptions with positive patch tests. Patients allergic to virginiamycin should be strongly cautioned against the taking of oral pristinamycin.

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