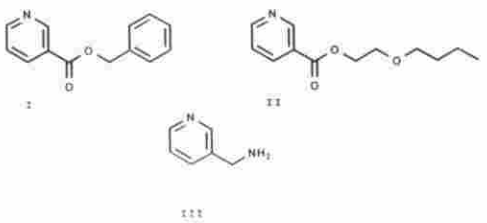

*Fig. 1.* Chemical structures of benzyl nicotinate (I), butoxyethyl nicotinate (II), and 3-(aminomethyl)pyridine (III).

inoid. Nicotinate ointments are used for the treatment of fibrositis, sprains and other painful musculoskeletal conditions, and for mild peripheral vascular disorders. The nonivamide would also increase cutaneous blood flow through a pain-mediated axon reflex flare mechanism (2).

5 to 10 min after application of nicotinates to normal skin, erythema and sometimes urticaria appear for 2–4 h (3). The intensity of the reaction varies between individuals and depends upon concentration, vehicle, site of application, etc. No reaction is seen in most patients with atopic dermatitis or rheumatoid arthritis (4). Lahti et al. (5, 6) observed that the NSAID aspirin and indomethacin inhibited nicotinate-induced non-immunologic contact urticaria (NICU), whilst terfenadine, an antihistamine, failed to do so. A series of peculiar cases of NICU from the surreptitious application of benzyl nicotinate was reported by Bandmann & Wahl (7). Pevny & Peter (8) have previously studied contact eczema from various pyridine derivatives in a chemistry student with positive reactions to nicotinic acid.

Our patient clearly exhibited a delayed response to the 2 nicotinates tested, indicative of a Type IV allergic response. Because of the similarity of the immediate and delayed responses to these 2 rather different esters, we may suppose that both were initially hydrolysed to free nicotinic acid, which was responsible for both the immediate and delayed reactions. This is supported by the observation of a positive reaction to 3-(aminomethyl)pyridine whose structure is more similar to nicotinic acid than to either of the esters (Fig. 1). This case of apparent cross-sensitivity between nicotinates and 3-(aminomethyl)pyridine may be of clinical importance, since the indications for use of the nicotinate-containing rubefacients (Finalgon® and Bayolin®) are similar to those of Algiospray® and Pangesic®.

We have found only 1 previous case of a delayed reaction to nicotinates. This was a burning mouth syndrome with positive patch test reactions to benzyl and propyl nicotinates used in certain toothpastes to improve gingival microcirculation (9).

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## Compound allergy to Spectraban® 15 lotion and Zovirax® cream

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*Key words:* sunscreen; antiviral cream; acyclovir; Virumerz ointment; medicaments.

Compound allergy refers to contact allergy to a preparation with negative patch tests to all its constituents. We report a patient with compound allergy to Spectraban® 15 lotion and 2 patients to Zovirax® cream.

### Case Reports

*Case no. 1.* A 35-year-old woman presented with acute dermatitis 24 h after applying Spectraban® 15 lotion on her face, arms and legs. She had previously used the sunscreen lotion without problems. Her dermatitis cleared with oral prednisolone.

Patch tests with the European standard series were negative. She had a 2+ reaction to her Spectraban® 15 lotion at 48 and 96 h, which was not accentuated by UVA. Patch tests with the individual constituents of Spectraban® 15 lotion (courtesy of Stiefel) in different concentrations in alcohol and petrolatum were all negative.

6 months later, she was patch tested with her own Spectraban® 15 lotion and a new batch of Spectraban® 15 lotion (courtesy of Stiefel). She had 2+ reactions to both lotions. Repeat patch tests with all the constituents of Spectraban® 15 lotion were again negative. 10 controls patch tested with both Spectraban® lotions were negative.

*Case no. 2.* A 60-year-old woman presented with acute eczema on her buttocks after applying Zovirax® cream for herpes simplex. She had used Zovirax® and Virumerz® ointment on her recurrent herpes simplex for the last 5 years without problems. Her eczema cleared with topical steroids.

Patch tests with the European standard series were negative. She had 1+ reactions to Zovirax® cream and Virumerz® ointment at 48 and 96 h. Patch tests with the individual constituents of Zovirax® cream (courtesy of Wellcome) in different concentrations were negative. We were unable to obtain the constituents of Virumerz® ointment for testing. 10 controls patch tested with Zovirax® cream and Virumerz® ointment were negative.

*Case no. 3.* A 30-year-old woman presented with acute eczema on her upper lips after applying Zovirax® cream on herpes labialis. She had had recurrent herpes labialis for more than 5 years. She had used Zovirax® cream and Virumerz® ointment periodically for her recurrent herpes labialis for 1 year without problems. Her eczema cleared with topical steroids.

Patch tests with the European standard series were negative. She had 1+ patch test reactions to Zovirax® cream and Virumerz® ointment at 48 and 96 h. Patch tests with the individual constituents of Zovirax® cream in different concentrations were negative. Constituents of Virumerz® ointment were not available for testing.

### Discussion

All 3 patients had positive patch tests to topical preparations, but were negative to their constituents. They appeared to be allergic to some by-products of the constituents of Spectraban® 15 lotion or Zovirax® cream, the first patient to Spectraban® 15 lotion and the other 2 patients to Zovirax® cream. The latter 2 patients also had contact allergy to Virumerz® ointment. We were unable to ascertain the allergen(s) in Virumerz® ointment.

Compound allergy has been reported to occur with medicaments (1–2), a wetting agent for soft contact lenses (4), cosmetics (5, 6) and a skin marker (7). Compound allergy to Spectraban® 15 lotion has been reported previously (1). Compound allergy to Zovirax® cream has not been reported previously, to the best of our knowledge.

Patch testing with different combinations of the constituents of the Spectraban® 15 lotion and Zovirax® cream may help ascertain the allergen (3). This very tedious procedure was not carried out in our patients because they were not keen to continue with further patch testing. Chromatographic analysis of the preparations may help identify new reaction products from the constituents (7), but requires the availability of special laboratory facilities.

Our reports illustrate the necessity of patch testing patients with suspected contact allergy to their own topical products, as well as to their constituents, to avoid missing compound allergy.

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