

Contact allergy to PVP/hexadecene copolymer

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Key words: PVP; hexadecene; copolymer; allergic contact dermatitis; sensitizer; cosmetics. © Munksgaard, 1998.

Case Report

A 53-year-old woman presented with a 1-year history of episodic erythematous patches on her face, legs, and trunk which lasted up to 2 weeks. She had a history of respiratory allergy but no previous history of eczema. On presentation, her skin examination was entirely normal.

Patch tests were applied to the Chemotechnique European standard series, relevant substances on the Chemotechnique cosmetic and textile series, and the 7 skin care products that she had been using. The patches were affixed to normal skin on the back using IQ chambers, removed at D2, and read at D3. There were +++ reactions to potassium dichromate, thiuram mix, mercapto mix, mercaptobenzathiazole, black rubber PPD mix, and nickel sulfate for which no relevance was found. There was also a +++ reaction to Neutrogena Rain-

bath Dry Oil Spray. The individual ingredients were tested at the concentrations used in the product (Table 1). At D3, there was a +++ reaction to 1 of these ingredients, PVP/hexadecene copolymer (5% pet.).

Discussion

PVP/hexadecene copolymer is a polymer of hexadecene and vinyl pyrrolidone monomers. It functions as a binder, film former, hair fixative, suspending agent, and viscosity-increasing agent in various cosmetic products, including lipsticks, blushers and mascara (1). PVP and PVP copolymers have been used extensively in hair styling products as film-forming polymers (2–4). To our knowledge, there are no reported cases of contact allergy to PVP copolymers and PVP has previously been reported to be non-sensitizing (5).

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Table 1. Ingredients of Rainbath Dry Oil Spray*

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|-----|---------------------------------|
| 1. | 5% cyclomethicone |
| 2. | 10% apricot kernel oil |
| 3. | 5% capric/caprylic triglyceride |
| 4. | 5% isopropyl palmitate |
| 5. | 5% PVP/hexadecene copolymer |
| 6. | 2% PEG sorbitan peroleate |
| 7. | 5% fragrance |
| 8. | 2% tocopheryl lanolate |
| 9. | 1% BHT |
| 10. | 1% tocopherol |

*All in pet.

Allergic contact dermatitis from cobalt in animal feed

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Key words: cobalt; airborne allergic contact dermatitis; animal feed; occupational. © Munksgaard, 1998.

Case report

A 30-year-old animal feed operative presented with a 3-month history of oedematous scaly eyelids and an erythematous rash around the neck that improved away from work. He had worked at an animal feed

manufacturing plant for 18 months, where it was very dusty. He had no past or family history of atopy. Patch testing to a standard series, facial series and his own work products showed a positive reaction at 2 and 4 days to cobalt. The remaining patch tests, including his work products, were negative.

After a 2-week period away from work, the dermatitis cleared completely.

Comment

Cobalt often reacts along with either nickel or chromate, as their source of contact is often the same. However, the source of an isolated cobalt reaction is often more obscure than that of nickel or chromate. In this instance, the relevance of the reaction to cobalt was attributed to the animal feed. Information from the plant showed that

many of the feeds being manufactured there contained cobalt as a trace element.

Allergic contact dermatitis from cobalt in animal feeds has only rarely been reported (1, 2).

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Banana hair conditioner and natural rubber latex allergy

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Key words: natural rubber latex allergy; fruit; hair conditioner; prick testing; cosmetics; angio-oedema; banana; occupational; cross-sensitivity. © Munksgaard, 1998.

Natural rubber latex protein hypersensitivity (Type I) is a hazard for operatives wearing rubber gloves. The potential for cross-reactions with fruits is well-established (1).

Case Report

A 42-year-old woman presented with 8 episodes of angio-oedema over 2 years. Precipitating events included: wearing starch powdered natural rubber latex gloves, eating a banana, and packaging banana hair conditioner. She worked on the production line of a company manufacturing a range of 'natural' cosmetics.

She was prick tested to water-extractable natural rubber latex proteins and showed a prompt 1-cm wheal and 5-cm flare. She also showed positive prick test reactions to banana, cucumber, avocado, kiwi and the banana hair conditioner. The patient was advised to use synthetic gloves at work and to avoid work with banana-related products. As other operatives continued to use powdered latex gloves (which cause airborne dissemination

of latex proteins (2)), advice was given on modifying the working environment.

Discussion

The production of banana hair conditioner represents a novel occupational hazard for the operative allergic to latex protein. Latex sensitization is already a significant issue for health care workers (3). The use of a 'natural' cosmetic could have potential complications for a latex-allergic patient.

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