

Short Communications

Allergic contact dermatitis of amputation stumps

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Dermatological problems in amputation stumps are discussed by Wilkinson (1975). The friction and pressure of prostheses in addition to the close and prolonged contact with the skin are important factors responsible for the skin becoming easily damaged. Trophic changes in the stumps are mainly the result of these factors.

Allergic contact eczema of amputation stumps occurs frequently because sensitizing agents penetrate more easily into the clinically or subclinically altered skin of the stump. Two types of sensitizer have to be considered:

- a. local antibacterial agents
- b. materials forming the prostheses.

In seven patients with amputation stumps of the thighs, allergic contact eczema could be confirmed by positive patch tests. Two patients were allergic to Hexomedine®, an antibacterial which is often prescribed in rehabilitation clinics, because this liquid penetrates easily into the skin. Gougerot et al. (1950) and van Ketel (1975) described two patients with allergy to Hexomedine.

Of five patients wearing leather prostheses, one was sensitized to paraphenylene diamine (1 % pet.) and other para-dyes. Sensitization to azo-dyes occurring in prostheses was described by Suurmond & Verspyck Mijnsen (1967). Two other patients showed positive patch tests to potassium dichromate (0.5 % pet.). As most leathers are tanned with chromium compounds, these reactions could be considered relevant. Another patient reacted to paratertiarybutyl-

phenol (5 % in acetone) and paratertiarybutyl-phenolformaldehyde resin (1 % pet.). These compounds are probably used in a glue in the manufacture of the prostheses.

The last patient showed a positive patch test to shammy leather which was used for patch testing. In this prosthesis, pieces of shammy leather were used to protect the skin from pressure.

Apart from contact dermatitis to local antibacterial agents, it is very difficult to prove a connection between the contact dermatitis and the positive patch tests with compounds from the prostheses, because it is not ascertained that these compounds are actually present in the particular prosthesis.

References

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