

Table 1. Patch test results in 10 patients allergic to Terramycin-Polymyxin B ointment. Technique: Finn chamber (Pirilä 1974) for 48 h, reading at 72 h. + = strong reaction, (+) = weak reaction, - = negative reaction. Patients 1 to 3 earlier reported (Bojs & Möller 1974); here polymyxin B was tested "as is". For oxytetracycline, 31 negative controls; for polymyxin B 3 %, 56 negative controls.

	Patient no.									
	1	2	3	4	5	6	7	8	9	10
Ung. Terramycin-Polymyxin B® (as is)	+	+	+	+	(+)	(+)	+	+	+	+
Oxytetracycline (3 % pet.)	+	+	+	(+)	(+)	+	-	+	+	+
Polymyxin B (3 % pet.)	+	+	+	+	+	+	+	+	+	+
Positive test to standard allergen(s)	-	+	+	-	+	+	-	+	+	+

(Bojs & Möller 1974), patients 1 to 3 are also considered truly allergic to this antibiotic. The great liability of this patient category to become sensitized to a variety of contactants is also illustrated in the table.

Patients 5 and 6 showed weak reactions to the ointment in spite of strong reactions to the ingredient(s). This may be due to the histamine-liberating property of polymyxin B, which can influence the development of a delayed hypersensitivity reaction (Magnusson 1963). The addition of an antihistamine to intracutaneously injected polymyxin B results in an increased expression of delayed allergy (Björkner & Möller 1973).

References

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- Magnusson, B. (1963) The influence of histamine on the tuberculin reaction. *Acta Dermato-venereologica* 43, 206.
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Sensitivity to the pesticide benomyl

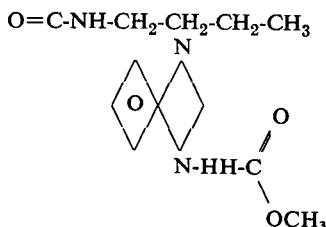
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A 31-year-old grower of plants (mainly begonia) was suffering from hand eczema for two years. He used some pesticides, especially Parathion® and Benlate®.

Patch testing was performed with silver patches (Fa. van der Bend, Brielle). The following ICDRG series were used: standard, plastics, glues, and pesticides. Other pesticides (1 % in pet.) were also tested. A positive reaction was observed only to benomyl (Benlate). Ten control persons did not show any reaction.

The structural formula of benomyl is:



Chemical name: methyl-N-1-(butylcarbamoyl)-benzimidazole-2-yl carbamate. This compound is used mainly against mildew. The contact sen-

sitivity is caused not by spraying but by picking the plants, which probably contain a residue of the pesticide. This condition may be similar to that seen with Plondrel®, which sensitized four patients (van Ketel 1975).

Reference

- van Ketel, W. G. (1975) Allergic dermatitis from a new pesticide. *Contact Dermatitis* 1, 297-300.

Contact hypersensitivity to glycerol

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Glycerol, propylene glycol (PG) and sorbitol are widely used as humectants in various cosmetics. Xylitol is a newcomer to this group and, up to now, has been used as an additive in toothpastes.

Irritant reactions to PG are common (Warsaw & Herrmann 1952, Hannuksela et al. 1975) but true allergy is apparently rare, occurring in about 0.2 % of patients with eczema (Hannuksela et al. 1976). Glycerol is structurally closely related to PG. The formula of PG is $\text{CH}_3\text{-CHOHCH}_2\text{OH}$, and that of glycerol $\text{CH}_2\text{OHCHOHCH}_2\text{OH}$. Sorbitol and xylitol also are polyols, containing six carbon atoms. In order to examine the irritant and allergenic properties of these polyols, they were tested in 420 consecutive patients with eczema using the chamber method (Pirilä 1975). Water served as a vehicle, and the concentrations were as follows: glycerol 50 %, sorbitol 10 %, xylitol 10 %. No irritant reactions were seen. One patient showed allergy to glycerol. This particular patient is on the staff of the allergy laboratory of the dermatological clinic in Helsinki. In January 1976, she noticed eczema on both hands. According to her own observations, a mixture of glycerol (1 part) and 70 % ethanol (9 parts) applied on the hands after washing them with soap and water was the apparent cause of her eczema. Glycerol tested at 10, 5, and 1 % in water and the glycerol-ethanol mixture as is, gave 3+ reactions at 48- and 72-hour readings. The reactions were considered to be allergic. The routine test series gave negative results. PG (as such), sorbitol and xylitol were also negative. The patient

stopped using the glycerol-ethanol mixture, and the eczema disappeared within a couple of days.

PG is more irritant than the other humectants of the polyol series. It is possible that PG promotes sensitization to other ingredients of vehicles (Hannuksela 1975, Aagren-Jonsson & Magnusson 1976). Studies to resolve whether this is possible with other humectants as well should be instituted.

Humectants themselves are apparently weak sensitizers, but the possibility of allergic reactions should be kept in mind.

References

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- Hannuksela, M. (1975) Allergy to propantheline in an antiperspirant (Ercoril® lotion). *Contact Dermatitis* 1, 244.
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