#### Comment

Glyceryl di-isostearate is a di-ester of isostearic acid and glycerin, which has been widely used in medicaments and cosmetics (1). Allergic contact dermatitis due to it is extremely rare and there has been just 1 case report (1). The patient reported was sensitized by lipsticks containing 35.5% glyceryl di-isostearate and gas chromatography detected 3 chemical impurities; glyceryl monoisostearate, glyceryl tri-isostearate and isostearic acid. The %s of each substance were 0.43, 29.05 and 0.21, respectively. A strong positive reaction was obtained with glyceryl monoisostearate at the very low concentration of 0.01%, thus identifying it as the cause. Our patient was sensitized by a foundation containing only 1.77% gly-

ceryl di-isostearate, though we cannot exclude the possibility of sensitization by impurities. There are 2 reports of contact dermatitis caused by glyceryl monostearate (2, 3).

#### References

- Hayakawa R, Matsunaga K, Suzuki M, Arima Y, Ohkido Y. Lipstick dermatitis due to C<sub>18</sub> aliphatic compounds. Contact Dermatitis 1987: 16: 215–219.
- Schwartzberg S. Allergic eczematous contact dermatitis caused by sensitization to glyceryl monostearate. Ann Allergy 1961: 19: 402–403.
- De Groot A C, Van der Meeren H L M, Weyland J W. Cosmetic allergy from stearic acid and glyceryl stearate. Contact Dermatitis 1988; 19: 77–78.

## Allergic contact dermatitis following subconjunctival injection of framycetin

C. A. MORTON, C. D. EVANS AND W. S. DOUGLAS

Department of Dermatology, Monklands District General Hospital, Airdrie ML6 OJS, UK

Key words: allergic contact dermatitis; systemic contact dermatitis; antibiotics; aminoglycosides; neomycin; framycetin; Soframycin; cross-sensitivity; ophthalmological surgery; subconjunctival injection; intradermal test. © Munksgaard, 1993.

#### Case Report

An 80-year-old woman was referred from the ophthalmology department of another hospital with a widespread dermatitis starting 2 days after cataract extraction. Examination revealed an acute, weeping dermatitis predominantly affecting the lower legs, forearms and hands. Diffuse subacute dermatitis was noted on the trunk, but the face, including the conjunctivae, was spared. She had undergone a left cataract extraction under general anaesthesia. A subconjunctival injection of framycetin (500 mg ophthalmic powder suspended in 0.5 ml sterile water for injection) was administered immediately after the operation as routine prophylaxis against endophthalmitis. At the same time, a subconjunctival injection of methylprednisolone (0.3 ml of methylprednisolone acetate 40 mg/ml aqueous suspension) was given to minimize postoperative inflammation.

An episode of varicose eczema 8 years earlier had also been accompanied by a widespread dermatitis, predominantly affecting the upper limbs. Following treatment of this episode, patch testing with the European standard series had shown positive reactions to neomycin (+D2, + D4) and p-tert-butylphenol-formaldehyde resin (+D2, + D4). Appropriate advice had subsequently been given to the patient and her family doctor, but her ophthalmic surgery had been carried out at another hospital where staff were unaware of her neomycin sensitivity.

Following clearance of the dermatitis, and with the patient's consent, an intradermal (i.d.) injection of framycetin (1 mg in 0.1 ml water for injection after dilution of 500 mg ophthalmic powder in 50 ml of water for injection) was administered on the volar aspect of the right forearm. Methylprednisolone (0.1 ml of methylprednisolone acetate 40 mg/ml aqueous suspension) was

injected i.d. at a distant forearm site. At 2 days, there was a 3-cm diameter area of erythema at the site of the framycetin injection (Fig. 1), but no reaction at the site

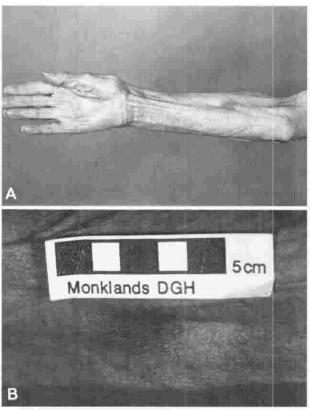


Fig. 1. General (A) and close-up (B) views of reaction at site of intradermal injection of 1 mg framycetin at 2 days.

of the methylprednisolone injection. There was also a mild, though widespread, flare of the patient's dermatitis at 2 days.

#### Comment

Allergic contact dermatitis from neomycin is well-recognized (1). Framycetin (Soframycin), and other aminoglycosides with a very similar chemical structure to neomycin, can also provoke hypersensitivity reactions and there may be cross-sensitivity (1–3). Cross-sensitivity between framycetin and neomycin is particularly frequent, with 56–100% of patients with neomycin sensitivity also sensitive to framycetin (2–5).

Framycetin is commonly given by subconjunctival injection in the prophylaxis of endophthalmitis following cataract surgery (6). There is evidence of significant systemic absorption of framycetin following this route of administration (7).

We can find no previous report of disseminated contact dermatitis from systemic absorption of subcutaneously administered framycetin. There was no local reaction at the injection site, possibly as a result of suppression by concurrent administration of corticosteroid.

This report confirms the importance of careful antibiotic selection in patients with neomycin sensitivity. In particular, cross-sensitivity with other topical and systemic aminoglycosides, especially framycetin, must be considered.

#### References

- MacDonald R H, Beck M. Neomycin:a review with particular reference to dermatological usage. Clinical and Experimental Dermatology 1983; 8: 249–258.
- Boonen W, Van Waveren Hogervorst J W. Hypersensitivity to antibiotics. *Dermatologica* 1963: 128: 394-400.
- Samsoen M, Metz R, Melchior E, Foussereau J. Crosssensitivity between aminoside antibiotics. Contact Dermatitis 1980: 6: 141.
- Kirkton V, Muncro-Ashman D. Contact dermatitis from neomycin and framycetin. Lancet 1965: 1: 138–139.
- Carruthers J A, Cronin E. Incidence of neomycin and framycetin sensitivity. Contact Dermatitis 1976; 2: 269 –270.
- Christy N E, Lall P. Postoperative endophthalmitis following cataract surgery. Arch Ophthalmol 1973: 90: 361–366.
- Bron A J, Richards A B, Knight-Jones D et al. Systemic absorption of Soframycin and subconjunctival injection. Br J Ophthalmol 1970; 56: 615–620.

# Achromic patch test from hydroquinone monobenzyl ether

C. Sanz de Galdeano, A. Aguirre, R. Zabala, J. A. Ratón and J. L. Díaz-Pérez

Dermatology Department, Cruces Hospital, Baracaldo, Vizcaya, Spain

Key words: hydroquinone; hydroquinone monobenzyl ether; hydroquinone monomethyl ether; depigmentation; leukoderma; achromic patch test. © Munksgaard, 1993.

Hydroquinone monobenzyl ether (HMBE) is a potent depigmenting agent once widely used in bleaching creams and as an antioxidant in rubber and acrylic resins (1). Patchy depigmentation in patients using these creams has been described, but we have found no previous report of it or any other hydroquinones causing an achromic patch test (2–4).

### Case Report

A 25-year-old woman presented with a 1-year history of foot eczema. Treatment with  $Trosid^{\textcircled{@}}$  (tioconazole) solution was prescribed, leading to progressive worsening. Patch testing was performed, using Finn Chambers and TRUE Test with the GEIDC standard series, the Chemotechnique shoe series,  $Trosid^{\textcircled{@}}$  solution and an imidazole series. At 2 and 4 days, only  $Trosid^{\textcircled{@}}$  solution was positive (D2 + + +, D4 + +).

She returned 2 months later for patch testing with the components of Trosid® solution. By that time, we could see an achromic area perfectly confined to the site where HMBE (1% pet.), included in the shoe series, had initially been patch tested (Fig. 1).

#### Comment

Duarte et al. (5) reported 2 cases of achromic patch tests due to thiuram mix, and Romaguera & Grimalt (3) reported the same due to para-tertiary-butylphenol. Our case is unusual because of the late development of an



Fig. 1. Achromic reaction 2 months after patch test with HMBE,

This document is a scanned copy of a printed document. No warranty is given about the accuracy of the copy. Users should refer to the original published version of the material.