

Contact sensitivity to octyldodecanol and trometamol in an anti-itch cream

Contact Dermatitis 2007; 56: 289–290

M. Singh, S. M. Winhoven and M. H. Beck

CDIU, The Dermatology Centre, Hope Hospital, Manchester M6 8HD, UK

Key words: cosmetics; octyldodecanol; trometamol.

We report 2 cases of contact sensitivity to a proprietary anti-itch cream: a 46-year-old woman with contact sensitivity to trometamol and a 62-year-old man with contact sensitivity to octyldodecanol.

Case 1

A 46-year-old woman presented with a 2-year history of perianal irritation, which had recently worsened and spread to the vulval area. She had been treated with topical corticosteroids, emollients, and a variety of over the counter preparations including E45 itch relief cream™ (Crookes Healthcare).

On examination, she had marked erythema and oedema of the perianal area, perineum, and natal cleft.

She was patch tested to our standard series and her own medicaments. She had a ++ reaction to E45 itch relief cream™. Subsequent testing to the breakdown products obtained from the manufacturers of E45 itch relief cream™ showed ++ reactions

to trometamol 1% aqueous and the original preparation.

Case 2

A 62-year-old man presented with a 5-year history of psoriasis. In the previous 12 months, he had developed a more widespread eczematous eruption confirmed on histology. He had been treated with topical corticosteroids, emollients, and E45 itch relief cream™, which he had bought over the counter 1 year previously.

On examination, he had widespread eczema on the trunk and limbs with relative sparing of the face. Flexures were minimally involved on presentation.

He was patch tested to our standard series and his own medicaments. He had a ++ reaction to E45 itch relief cream™. The breakdown products of E45 itch relief cream™ were patch tested. At the 4th day reading, there was a + reaction to octyldodecanol 3% in petrolatum.

Discussion

Trometamol, 2-amino-2-(hydroxymethyl) 1,3-propanediol, or thromethamine is stated to be a biologically inert amino alcohol, which buffers carbon dioxide and acids *in vitro* and *in vivo* (1). It is used in cosmetics, as an intracellular and extracellular alkalinizing agent in medicine, and as a buffer solution industrially (1). As far as we are aware, there is only 1 previous published report of contact sensitivity to trometamol in a female patient related to an ophthalmic gel (2).

Contact sensitivity to octyldodecanol is rare, with to our knowledge only 2 previous cases reported in male subjects. Both were due to cotrimazole cream (3, 4). Octyldodecanol is an aliphatic alcohol used as an emulsifier and opacifying agent in moisturizers because of its lubricating and emollient properties. It is an ingredient in over 200 products such as cosmetics, shampoos, deodorants, baby shampoos, liquid soaps, and anti-itch creams. Synonyms for this substance include cyclal G20, eutanol G, michel X0-143, and standamul G (5).

E45 itch relief cream™ has been on the market since 2002. We are not aware of published reports of contact sensitivity to this product. We wish to

highlight these cases of contact sensitivity to rarely reported allergens in a commonly used over the counter preparation.

References

1. Martindale: The Extra Pharmacopoeia. William Martindale, James EF Reynolds. Pharmaceutical Press 1993, p. 1424.
2. Bohn S, Hurni M, Bircher A J. Contact allergy to trometamol. *Contact Dermatitis* 2001; 44: 319.
3. Dawn G, Forsyth A. Genital swelling caused by octyldodecanol contact dermatitis. *Clin Exp Dermatol.* 2003; 28: 228–229.
4. Dharmagunawardena B, Chrales-Holmes R. Contact dermatitis due to octyldodecanol in clotrimazole cream. *Contact Dermatitis* 1997; 36: 231.
5. Estrin N F (ed.). *CFTA Cosmetic Ingredient Dictionary*, 2nd edition. Washington, DC, The Cosmetic, Toiletry and Fragrance Association, 1977: p. 190.

Address:

*Dr Minal Singh
Specialist Registrar
The Dermatology Centre
Hope Hospital
Manchester M6 8HD
UK
e-mail: minalnshah@hotmail.com*