

Contact urticaria caused by phenoxyethanol in ultrasound gel

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Phenoxyethanol is a preservative used extensively in cosmetics and pharmaceutical products because of its antibacterial and antifungal properties. Despite its widespread use, it is a rare cause of delayed and immediate contact reactions. We report a case of contact urticaria after use of an ultrasound gel containing phenoxyethanol.

CASE REPORT

An 80-year-old woman was referred for evaluation of pruritic, erythematous and oedematous lesions at the site of contact of the ultrasound gel Eco Supergel (Ceracarta Laboratories, Forli, Italy). The eruption started 10 minutes after contact with the gel at room temperature. The patient had noted previous episodes of swelling and pruritus a few minutes after the application of cosmetics such as moisturizers and wet wipes.

An open test on the forearm with Eco Supergel (water, polymer, humectant, preservatives, and colorant) was positive at 10 minutes (Figure 1). As we were not able to obtain the components of the gel, we performed open application tests with some preservatives: at the 10-minute reading, phenoxyethanol (1% pet.) gave a positive result (Figure 2). Open application tests gave negative results with methyl dibromo glutaronitrile, propylene glycol, polyethylene glycol, triethanolamine, imidazolidinyl urea, methylisothiazolinone, and Kathon CG (methylchloroisothiazolinone + methylisothiazolinone). The manufacturer confirmed that Eco Supergel contained phenoxyethanol.



FIGURE 1 Photograph taken at 30 minutes of the site of application of the ultrasound gel Eco Supergel



FIGURE 2 Open application test with phenoxyethanol 1% pet. at 30 minutes

DISCUSSION

Cutaneous adverse events resulting from the use of ultrasound gel are mostly allergic contact dermatitis,¹ but cold urticaria,² contact urticaria^{1,3} and anaphylaxis⁴ manifestations have been described as well. The allergens reported in allergic contact dermatitis patients include phenoxyethanol, propylene glycol, imidazolidinyl urea, methylisothiazolinone,¹ and, recently, Disperse Blue.⁵ Phenoxyethanol has been described as a cause of contact urticaria⁶⁻¹⁰ and anaphylaxis⁹ in cosmetics, but we have not found it to be reported as culprit agent in ultrasound gel. Obtaining the complete list of components of the ultrasound gel obtained from the manufacturer is recommended to identify the involved allergen.¹

CONFLICTS OF INTERESTS

The authors have no conflicts of interest to report.

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