

Allergic contact dermatitis from tocopheryl acetate (vitamin E) and retinol palmitate (vitamin A) in a moisturizing cream

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Glaan® is a moisturizing cream widely used in Spain, from which we have previously reported 4 cases of allergic contact dermatitis (1), none of which showed allergy to both vitamin (vit) E acetate and vitamin A palmitate, as in this case.

Case Report

A 17-year-old man, after suffering a 3rd-degree burn on the right leg, was grafted and Betadine® solution subsequently applied. After 4 days, he developed an erythema, so Betadine® solution was replaced with Glaan® cream. 2 months later, he developed eczema on the right leg, which required topical treatment with 1/10,000 potassium permanganate and betamethasone dipropionate.

After complete resolution of his cutaneous eruption, he was patch tested with the GEIDC standard series (TRUE Test™), components of Betadine® solution, and components of Glaan® cream, using Finn Chambers and reading at 2 and 4 days (Table 1).

Comment

Vit E and vit A are now widely used in many cosmetic products for their anti-aging effects, but reports of allergic or irritant cutaneous reactions are rare.

According to De Groot et al. (2), the low concentrations of vit E used in cosmetic products appear to be the reason for its rarity as an allergen. Nevertheless, 21 cases of allergic contact dermatitis from vit E have been described from various sources, including creams, soaps and deodorants. Different clinical patterns have been reported, including localized and generalized eczema (3), contact urticaria, and erythema-multiforme-like eruption (4, 5).

Allergic contact dermatitis from vit A acid (retinoic acid) has been reported (6–8), but there is only 1 previous case from retinol palmitate (tested as is) (9).

Table 1. Patch test results

GEIDC standard series	—	—
Glaan® cream (as is)	+++	+++
tocopheryl acetate (vit E) 20% pet.	+++	+++
tocopheryl acetate (vit E) 10% pet.	+++	+++
retinol palmitate (vit A) 10% MEK	+	+++
retinol palmitate (vit A) 1% MEK	+	+++
Stearate 1000 NL 1% aq.	—	++
Stearate 400 NL 1% aq.	—	++
rest of components of Glaan® cream (control test negative in 21 patients)	—	—
Betadine® sol (as is)	IR	IR
povidone-iodine 10% alc 70°	IR	IR
povidone-iodine 5% alc 70°	—	—
metalloid iodine 0.5% alc 70°	—	—

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