

Short Communication

Allergic contact dermatitis from dioctyl sodium sulfosuccinate in a topical corticosteroid

AI-YOUNG LEE AND KI-HYUN LEE

Department of Dermatology, Eulji Hospital, College of Medicine, 280-1, Hagye-1-dong, Nowon-gu, Seoul 139-711, Korea

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Contact dermatitis from topical corticosteroids should be considered if an existing dermatitis resists treatment or becomes worse (1).

Case Report

A 28-year-old woman was treated for plantar warts by laser followed by immunotherapy. Her immunotherapy, with a contact allergen, caused erythematous vesiculobullae with intense pruritus. A desoxymethasone (Esperson®) gel brought her lesional improvement for a few days, without further progress. Desoxymethasone (Esperson®) ointment was prescribed for her at her next visit. She then mixed the 2 topical agents herself for about 3 weeks and developed a large tense pruritic bulla.

Patch tests with desoxymethasone gel and ointment, both as is, showed a strong reaction to desoxymethasone

gel, which spread enough to obscure the reaction to the neighboring desoxymethasone ointment. Patch tests with their ingredients showed a reaction to dioctyl sodium sulfosuccinate (Tables 1, 2).

Discussion

Allergic contact dermatitis from topical corticosteroids can be due to the corticosteroids themselves or to one of their excipients. Benzyl alcohol, chlorocresol, ethylenediamine hydrochloride, isopropyl palmitate, parabens, polysorbate 60, propylene glycol, and stearyl alcohol have been reported (2).

Dioctyl sodium sulfosuccinate (DSS) is an anionic surfactant. Sulfosuccinate derivatives are rare sensitizers and are included in washing products such as shampoos, soapless cleansers, dishwashing liquids, and some skin care preparations (1, 2). There have been only 2 cases of allergic contact dermatitis reported, from disodium ricinoleamido MEA-sulfosuccinate in a shampoo (3), and from sodium ricinoleic monoethanolamido sulfosuccinate derivative in a hand cleanser (4). This is the 1st case of allergic contact dermatitis from DSS as an ingredient of a topical corticosteroid.

Acknowledgements

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References

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Table 1. Patch test results with the ingredients of desoxymethasone ointment

Ingredients	D2	D4
desoxymethasone (0.25% pet.) ^{a)}	—	—
isopropyl myristate (10% alc.) ^{b)}	—	—
Eucerin anhydrous (as is) ^{b)}	—	—
Solbrol M (2% pet.) ^{c)}	—	—
Solbrol P (2% pet.) ^{c)}	—	—

a) Active. b) Base. c) Preservatives.

Table 2. Patch test results with the ingredients of desoxymethasone gel

Ingredients	D2	D4
desoxymethasone (0.25% pet.) ^{a)}	—	—
isopropyl myristate (10% alc.) ^{b)}	—	—
triethanolamine (2% pet.) ^{b)}	—	—
ethyl alcohol (as is) ^{b)}	—	—
disodium edetate (1% aq.) ^{c)}	—	—
carboxyvinyl polymer (as is) ^{d)}	—	—
dioctyl sodium sulfosuccinate (1% aq.) ^{e)}	+++	+++

a) Active. b) Base. c) Emulsifying. d) Gelling. e) Surfactant.