

LETTER TO THE EDITOR

Contact urticaria syndrome from eye drops: Levofloxacin hydrate ophthalmic solution

Dear Editor,

We report an interesting case of immunological contact urticaria from eye drops. A 27-year-old woman applied two eye drops for bacterial conjunctivitis: 0.5% levofloxacin hydrate ophthalmic solution (Cravit; Santen Pharmaceutical, Osaka, Japan) and betamethasone sodium phosphate plus fradiomycin sulfate solution (Rinderon-A; Shionogi, Osaka, Japan). Immediately, she developed conjunctival hyperemia, nasal discharge and sneezing. Subsequently, facial edema, pruritic rash on the trunk and extremities, and mild dyspnea developed. She presented at the emergency clinic of our dermatology department 2 h after the onset. At that time, however, physical examination revealed no overt findings except for mild periorbital edema. We suspected contact urticaria syndrome on the basis of history. Prick testing was performed with the two eye drops (as is), positive control (histamine chlorohydrate solution, 10 mg/mL) and negative control (saline).¹ Solutions were applied to the volar aspect of the left forearm, and were pierced with a Prick-Lancetter (Ewo Care, Gislaved, Sweden). After 15 min, those droplets were wiped off with soft paper tissue, and reading performed. Positive reactions for Cravit

ophthalmic solution 0.5% (6-mm wheal in diameter) and histamine chlorohydrate solution, and negative for Rinderon-A solution and saline were noted (Fig. 1). All 10 normal controls were prick test-negative to Cravit ophthalmic solution.

Contact urticaria syndrome is classified into four stages, with generalized urticaria present in stage 2, and contact urticaria and asthma, rhinoconjunctivitis, and orolaryngeal and gastrointestinal symptoms in stage 3.^{2,3} This case should be classified as stage 3 because the patient developed rhinoconjunctivitis and orolaryngeal symptoms as well as generalized urticaria. Cravit ophthalmic solution 0.5% has been sold since 2000, and is the most widely used antibiotic eye drops in Japan. Although contact urticaria syndrome to the eye drops is rare, two cases with anaphylactic symptoms were collected.⁴ Both are teenagers; one developed pressure reduction (90/48 mmHg) 15 min after applying the eye drops, and the other revealed rash and swelling on eyelids, edema of lips, dysphonia and mild dyspnea immediately after applying them. Regrettably, no testing to identify the problematic ingredient was performed in either of the cases.

The present case informs medical staff of other fields about this unrecognized condition and that re-exposure to the allergen can be fatal.

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Figure 1. Results of prick testing: positive reaction to Cravit ophthalmic solution 0.5% (6-mm wheal in diameter) and histamine chlorohydrate solution, and negative ones to others.