

compounds, and especially here with the metabolite of sulfasalazine, that is, 5ASA. Occurrence of positive PT to PPD and benzocaine with sulfasalazine allergy have not yet been reported, but PT are not always performed for investigating cutaneous adverse drug reactions; and when they are, the baseline series is not always done.

This observation leads us to suggest that 5ASA could be the responsible agent for sulfasalazine allergy and, by the way, that PT with PPD and benzocaine could be useful as “markers” of this allergy. Additional studies are needed to confirm our hypothesis. We suggest systematically adding the baseline series when patch testing cutaneous adverse drug reactions.

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Allergic Contact Dermatitis to Timolol: A Report of 2 Cases and Review of the Literature

To the Editor:

The increased reports of ophthalmic solutions causing eyelid allergic contact dermatitis (ACD) led us to report 2 cases attributable to timolol, an uncommonly reported cause of

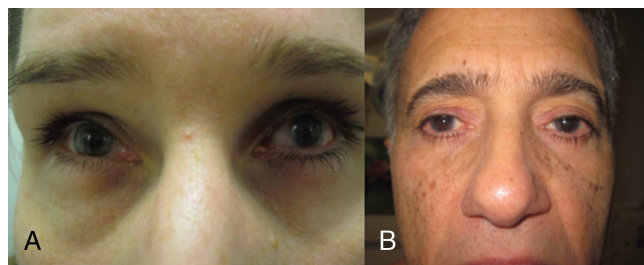


FIGURE 1. Periocular dermatitis in 2 patients. A, Twenty-seven-year-old woman with erythematous patch on left eyelid. B, Sixty-two-year-old man with bilateral erythematous patches on upper eyelids.

ACD. Case 1 is that of a 27-year-old woman with a history of retinopathy of prematurity and narrow-angle glaucoma of the left eye, treated with several ophthalmic solutions, who presented to the dermatology department with a 6-month history of pruritic dermatitis involving the left eyelid (Fig. 1A). An ACD to one of her ophthalmic medications was suspected. At the time of presentation to the dermatologist, she was applying latanoprost (Xalatan), brimonidine tartrate/timolol maleate (Combigan), and bimatoprost (Lumigan) drops to the left eye, and bromfenac (Xibrom) drops to the right eye.

Patch testing on the back was performed to the North American Contact Dermatitis Group series, Eye Medicaments series, and 6 ophthalmic medications (ketorolac, bimatoprost, olopatadine, brimonidine tartrate/timolol maleate, moxifloxacin, and prednisolone) that the patient had used at presentation or shortly prior. By the 96-hour reading, the only positive reaction was a 2+ reaction to brimonidine tartrate/timolol maleate (Combigan) ophthalmic solution, 0.2%/0.5%. The Eye Medicaments series, which includes propranolol, a β -blocking agent, was negative in the patient.

Based on the initial results, an ACD to either brimonidine or timolol was suspected. Purified brimonidine was tested in petrolatum at decreasing concentrations (from 0.2% to 0.0002%) with a negative result at all concentrations, whereas a 2+ result was noted to purified timolol, 0.5%, at the 96-hour reading. To confirm the patient's reactivity to timolol, a dilution series was performed with timolol at concentrations of 5% to 0.0078%. The patient developed a 2+ reaction to timolol at all concentrations from 5% to 0.03125%, consistent with contact sensitization. The patient was treated with fluorometholone ointment and switched to ophthalmologic preparations that did not contain β -blocking agents, with subsequent resolution of her ACD.

Case 2 is that of a 62-year-old man with a history of glaucoma who was referred to dermatology for a 1-month history of redness and itching of bilateral periorbital skin, thought to be a possible ACD by his ophthalmologist (Fig. 1B). He was currently being treated with loteprednol (Lotemax) and

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bimatoprost (Lumigan) drops to both eyes, dorzolamide/timolol (Cosopt) and pilocarpine drops to the right eye, and timolol drops to the left eye.

Patch testing on the back was performed with the North American Contact Dermatitis Group series, Eye Medicaments series, along with the patient's ophthalmic medications. A 1+ reaction was observed in two of his ophthalmic medications, timolol and dorzolamide/timolol (Cosopt) drops, at the 96-hour reading. Based on the results and the patient's history, the patient's condition was diagnosed as an ACD to timolol. The patient's β -blocking agents were discontinued, and the dermatitis subsequently cleared without further treatment.

Our 2 cases of patients with glaucoma on multiple ophthalmic medications with an ACD to timolol highlights the complexities in the diagnosis of eyelid ACD^{3,4} and the need for testing patients to their own products, as well as purified versions of medications in the case of combination agents.

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Allergic Contact Dermatitis From Ethylhexylglycerin in Sunscreens

To the Editor:

A 16-year-old boy experienced, for a period of 18 months, repeated episodes of widespread dermatitis localized to sun-exposed areas. These reactions occurred within 24 hours of

using various sunscreens, including some based on the physical sun blocks with titanium dioxide and zinc oxide. Patch testing and photopatch testing were carried out with the North American Contact Dermatitis Group (NACDG) standard and photoallergens series (AllergEAZE; SmartPractice, Calgary, Alberta, Canada) and with the patients' own sunscreens. Photoallergens were applied in duplicate, and on day 1, 1 set was irradiated with 5 joules of UV-A. All tests were read at day 2 and day 4, according to the criteria set by the International Contact Dermatitis Research Group. Positive reactions were obtained with 2 of the patient's own sunscreens, Neutrogena Ultra Sheer Face Sunscreen SPF 45 and Neutrogena Pure and Free Baby Sunblock Lotion SPF 60 (Johnson & Johnson, New Brunswick, NJ). These reactions were of equal intensity on the irradiated and nonirradiated sites.

A request to obtain the individual ingredients was denied by the manufacturer. Instead, we were provided with 6 additional products that together contained all of the ingredients present in the 2 sunscreens. Upon further patch testing, the patient had positive reactions to 3 of these products. We then tabulated all of the ingredients found in the 2 sunscreens and in the 6 additional products and came to a total of 134 substances. Only 1 ingredient was common to each product that gave a positive reaction in our patient and was absent in the products that he did not react to. This ingredient was ethylhexylglycerin.

The NACDG has added ethylhexylglycerin 5% in petrolatum to its standard series for 2013–2014. The patient was recalled for further testing, which showed a 1+ positive reaction to ethylhexylglycerin at day 2 and day 4.

Ethylhexylglycerin (CAS number 70445-33-9) is a glyceryl ether that is increasingly used in cosmetics for its dual antimicrobial and emollient solvent properties.¹ It remains an infrequently reported contact allergen, whereas only 5 cases, all women, have been published to date.^{1–5} Three patients presented with facial dermatitis caused by ethylhexylglycerin-containing creams,^{1,2,4} whereas the other 2 patients had a more widespread dermatitis secondary to sunscreens.^{3,5} The manufacturers of the suspected products greatly facilitated the correct identification of the allergen by readily providing the individual ingredients of the suspected products. Had we benefited from similar collaboration from the manufacturer of our patients' sunscreens, we would have avoided the tedious elimination process that was necessary to pinpoint the cause of his dermatitis and saved him a few visits to our clinic.

Ethylhexylglycerin remains an infrequent allergen, whereas Andersen¹ was able to identify only 1 patient of 785 consecutively patch-tested patients. Given that its use becomes more widespread, more cases will likely be uncovered. For the next 2 years, the NACDG will be monitoring the prevalence of sensitization to this cosmetic ingredient in the United States and Canada.

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