

occurred in our case.

Atypical presentations of tinea faciei can lead to misdiagnosis. The present case underlines that physicians should keep in mind that clinical features of superficial fungal infection can be substantially modified by incorrect treatment, to mimic even herpes simplex virus infection. Fungal infection should be on the list of differential diagnoses of facial eruptions, especially in cases not responding to preceding management.

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# Allergic Contact Dermatitis Caused by Topical Eye Drops Containing Latanoprost

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Dear Editor:

Prostaglandin analogues are increasingly used as the first choice of drug for an open angle glaucoma<sup>1</sup>. They are known to be highly effective and have little systemic side effects. Latanoprost is an ester prodrug analog of prostaglandin F<sub>2</sub>α which reduces the intraocular pressure by increasing the uveoscleral outflow<sup>2</sup>. Latanoprost 0.005% has received the European and the US approval as the first-line drug reducing the intraocular pressure in patients with open angle glaucoma or ocular hypertension. Allergic contact dermatitis due to latanoprost is rare, although it has been commonly used worldwide on patients with

glaucoma. Only three cases of allergic contact dermatitis due to latanoprost have been reported in the English literature<sup>3-5</sup>. Herein we report a case of allergic contact dermatitis due to topical eye drops containing latanoprost. A 70-year-old man presented with an 1-year history of skin lesion on both eyelids to our department. He showed erythematous oozing patches on both eyelids, and suffered from severe pruritus and burning sensation (Fig. 1). He was diagnosed with open angle glaucoma 5 years ago, and he has been treated with latanoprost 0.005% (Xalatan<sup>®</sup>; Pfizer, New York, NY, USA) and dorzolamide/timolol (Cosopt<sup>®</sup>; Merck, Whitehouse Station, NJ, USA). The

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**Fig. 1.** Erythematous oozing patches on the both eyelids.

Pfizer, New York, NY, USA) and dorzolamide/timolol (Cosopt<sup>®</sup>; Merck, Whitehouse Station, NJ, USA). The patch tests with standard antigens (True Test<sup>®</sup>; SmartPractice Denmark, Hillerød, Denmark) were all negative except neomycin which showed a weak positive reaction. The patch test with latanoprost showed a positive reaction (+) showing erythema, edema and papules. And the patch test with dorzolamide/timolol showed a doubtful reaction (?+) which with only a faint erythema (Fig. 2). Based on the patch test results, we confirmed the diagnosis of allergic contact dermatitis due to topical eye drops containing latanoprost, and the patient changed his anti-glaucoma medication. The skin lesions improved rapidly with systemic and topical corticosteroid treatment. Glaucoma is a common eye disorder characterized by progressive optic nerve degeneration and changes in the visual field. The elevated intraocular pressure is the most important risk factor of glaucoma progression<sup>1</sup>. According to the World Health Organization and the Glaucoma Foundation, glaucoma is believed to affect between 67 to 105 million people worldwide<sup>2</sup>. The maintenance therapy with topical anti-glaucoma drug is crucial to prevent a permanent visual loss. Currently, prostaglandin F<sub>2</sub>  $\alpha$  analogues are the most commonly used drug for glaucoma therapy. There are three main drugs of prostaglandin F<sub>2</sub>  $\alpha$  analogues: latanoprost, bimatoprost and travoprost. Latanoprost 0.005% is the first line drug for glaucoma in Korea as well as in Europe and the United States. The common adverse effects of latanoprost are conjunctival hyperemia, hypertrichosis and hyperpigmentation, but these are only mild and tolerable side effects<sup>2</sup>. Allergic contact dermatitis due to latanoprost may cause pruritic skin eruptions although it is a very rare side effect. There is a report that a patient was sensitized to latanoprost but



**Fig. 2.** Patch test with Xalatan<sup>®</sup> showed positive reaction (right patch) and patch test with Cosopt<sup>®</sup> showed doubtful reaction (left patch) after 48 hours.

not to bimatoprost, which is another drug of prostaglandin F<sub>2</sub>  $\alpha$  analogues<sup>4</sup>. Thus, switching the causative drug to another anti-glaucoma drug might be a treatment of choice. In addition, since bimatoprost 0.03% (Latisse<sup>®</sup>; Allergan, Irvine, CA, USA) is widely used for the treatment of eyelash hypotrichosis in the field of dermatology, we have to pay attention to the occurrence of contact dermatitis due to bimatoprost.

In conclusion, even though there are not many reports, we have to be aware of the possibility of allergic contact dermatitis due to latanoprost.

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