**Latisse-Induced Periocular Skin Hyperpigmentation**

Bimatoprost solution, 0.3% (Latisse; Allergan Inc, Irvine, California), is a synthetic prostaglandin analogue indicated for the treatment of hypotrichosis and dispensed separately to lower intraocular pressure (Lumigan, 0.3%; Allergan Inc). For the treatment of hypotrichosis, Latisse is used as a single drop on a sterile applicator and applied to the patient’s upper eyelid skin at the eyelash margin daily at night.

The prescribing information for Latisse1 includes warnings related to skin changes such as possible lid pigmentation of the periorbital tissue and hair growth outside the treatment area. The most common adverse events caused by Latisse use are described as eye pruritus, conjunctival hyperemia, skin hyperpigmentation, ocular irritation, dry eye symptoms, and erythema of the eyelid. These common adverse events have been described in less than 4% of patients.

We describe 4 cases of Latisse-induced hyperpigmentation of the eyelid skin using the eyelid delivery method and discuss the findings of these cases compared with previously reported data with Lumigan.2

**Report of Cases.**

**Case 1.** A 59-year-old white woman started using Latisse nightly in May 2009. After 8 weeks, she described increased eyelash length and gradual onset of mild hyperpigmentation of her upper eyelids. Examination revealed bilateral symmetric uniform light tan-colored hyperpigmentation that extended 6 mm from the upper eyelid margins, with no involvement of the lower lids. The patient elected to continue using Latisse 2 nights per week. The patient reported that eyelash and pigmentation changes remained unchanged after 6 months of use.

**Case 2.** A 54-year-old white woman started using Latisse nightly in May 2009. After 6 to 8 weeks, she reported increased eyelash length and mild hyperpigmentation of upper eyelids. Examination showed bilateral erythema and symmetric uniform light tan-colored hyperpigmentation 15 mm from the upper eyelid margins and 3 mm from the lower eyelid margins. She also described conjunctival hyperemia and eye pruritus during the initial 2 weeks of use that resolved without treatment. The patient elected to continue using Latisse 2 nights per week. The patient reported that the eyelash and pigmentation changes remained unchanged after 6 months of use.

**Case 3.** A 37-year-old white woman started using Latisse nightly in May 2009. After 3 weeks, she noted gradual onset of increased periocular pigmentation. Examination showed symmetric uniform mild to moderate tan-colored hyperpigmentation extending 10 mm from the upper eyelid margins and milder hyperpigmentation extending 3 mm from the lower eyelid margins, with darker pigmentation laterally. She noted increased eyelash length and darkening of eyelash color after 6 weeks. She reported conjunctival hyperemia and eye pruritus during the first 2 weeks of use, which self-resolved. After 8 weeks of nightly use, the patient elected to continue using Latisse 2 nights per week. The patient reported that eyelash and pigmentation changes remained unchanged after 6 months of use.

**Case 4.** A 33-year-old Asian woman started using Latisse nightly in August 2009. After 4 weeks, she noted a gradual increase in eyelash length and periocular pigmentation. Upper eyelid examination showed symmetric uniform moderate brown hyperpigmentation of the pretarsal skin with lighter brown pigmentation extending to 15 mm from the eyelid margin. Lower eyelid examination showed symmetric moderate hyperpigmentation 5 mm from the lower eyelid margin that was greatest laterally. After 8 weeks, she elected to continue using Latisse 2 nights per week. The patient reported that eyelash and pigmentation changes remained unchanged after 3 months of use (Figure).

**Comments.** The observations in this series suggest that the direct application of bimatoprost to the upper eyelid margin appears to cause periocular hyperpigmentation, as suggested by the packet insert.1 However, detailed descriptions of the degree, distribution, and time course of skin hyperpigmentation have not been described. The intensity and color of skin change seen in this case series has similarities to the skin hyperpigmentation reported with Lumigan (Allergan Inc) and other prostaglandin analogues for the treatment of glaucoma.2,3

The onset of hyperpigmentation was within 3 to 8 weeks after starting to take the drug, suggesting that more rapid onset of periocular skin hyperpigmentation may occur with direct application of bimatoprost to the eyelid. Following installation of bimatoprost (Lumigan) in the conjunctival cul de sac for glaucoma treatment, the onset of observed skin hyperpigmentation was reported most frequently between 3 and 6 months, with a range of onset between 50 and 618 days.3 We postulate that earlier detection of periocular hyperpigmentation in this series of patients who used Latisse compared with Lumigan may be a result of the patients’ cosmetic consciousness or a consequence of the direct application of Latisse to the eyelid margin skin.
The application of Latisse to the upper eyelids appears to cause hyperpigmentation beyond the region of application. This hyperpigmentation extends onto the preseptal upper eyelid skin, and 3 of the 4 cases had hyperpigmentation of the lower eyelids. It is possible that in patients using Latisse, lower eyelid skin pigmentation may occur owing to drug spread following upper eyelid contact with the lower eyelid. In patients using Lumigan, pigmentary changes were usually first noted on the lower eyelids followed by changes on the upper eyelids.3

The patients’ continued use of Latisse suggests that the periocular hyperpigmentation was cosmetically acceptable. Skin hyperpigmentation may be reversible, as has been reported in cases of Lumigan use.3

As noted with the use of Lumigan, skin erythema may be seen with the use of Latisse, as seen in case 2. The onset, frequency, extent, and distribution of periocular pigmentary changes and its course after discontinuation of Latisse merit further study.

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1. Allergan, Inc. Latisse® (Bimatoprost Ophthalmic Solution) 0.03% Prescribing Information. Irvine, CA: Allergan Inc; 2009.