An otherwise healthy woman in her late 50s with Fitzpatrick skin type II presented to the dermatology department for a scheduled cosmetic botulinum toxin injection. Her medical history was notable only for periodic nonsurgical cosmetic procedures including botulinum toxin and dermal fillers, and she was not taking any daily systemic medications. During the preoperative assessment, subtle bilateral and symmetric hypertrichosis with darker terminal hair formation was noted on the periorbital skin and zygomatic cheek. Upon inquiry, the patient admitted to purchasing a “special eye drop” from Mexico and using it regularly. After instillation of 2 to 3 drops per eye, she would laterally wipe the resulting excess drops away from the eyes with her hands and then wash her hands. She denied a change in eye color from their natural brown but did report using blue color contact lenses. She denied an increase in hair growth elsewhere including the upper lip, chin, upper chest, forearms, and hands. She denied deepening of her voice, acne, or hair thinning.

WHAT'S THE DIAGNOSIS?

a. acetazolamide-induced hypertrichosis
b. betamethasone-induced hypertrichosis
c. bimatoprost-induced hypertrichosis
d. cyclosporine-induced hypertrichosis
e. timolol-induced hypertrichosis

PLEASE TURN TO PAGE E21 FOR THE DIAGNOSIS
Bimatoprost-Induced Hypertrichosis

Latanoprost, a prostaglandin analogue, typically is prescribed by ophthalmologists as eye drops to reduce intraocular pressure in open-angle glaucoma. Common adverse reactions of latanoprost drops include blurred vision, ocular irritation, darkening of the eyelid skin, and pigmentation of the iris.

In 1997, Johnstone reported hypertrichosis and increased pigmentation of the eyelashes of both eyes and adjacent skin after latanoprost drops were used in glaucoma patients. Subsequently, topical latanoprost and bimatoprost, a similar analogue, are now utilized for the cosmetic purpose of thickening and lengthening the eyelashes due to the hypertrichosis effect. Travoprost, another prostaglandin analogue used to treat glaucoma, also has been associated with periocular hypertrichosis.

Concomitant poliosis of the eyelashes with hypertrichosis includes blurred vision, ocular irritation, darkening of the eyelid skin, and pigmentation of the iris. Anagen growth as well as hypertrophic changes in the affected follicles.

Patients should use extreme caution when purchasing unregulated medications due to the risk for impurities, less stable formulation, or inaccurate concentrations. Comparison between brand name and approved generic latanoprost has found notable differences, including variations in active-ingredient concentration, poor stability in warmer temperatures, and higher levels of particulate matter.

Some cosmetic eyelash enhancers sold over the counter or online may contain prostaglandin analogues, but they may not be listed as ingredients. One report noted a bimatoprost product with a concentration level double that of brand-name bimatoprost that was discovered using high-performance liquid chromatography–tandem mass spectrometry.

Treatment options for eliminating the excess hairs include discontinuing the prostaglandin analogue or applying it only to the eyelid margin with an appropriate applicator. Waxing, manual extraction, laser hair removal, electrolysis, and depilatory creams are alternative treatments.

REFERENCES