

Hypertrichosis of the malar areas and poliosis of the eyelashes caused by latanoprost[☆]



Hipertrichosis de las Áreas Males y Poliosis de las Pestañas Causados por Latanoprost

To the Editor:

The synthetic phenyl-substituted analog of prostaglandin F_2 alpha ($PGF_2\text{-}\alpha$), latanoprost, is an intraocular pressure-lowering drug for use in patients with primary open-angle glaucoma and ocular hypertension. Hypertrichosis of the eyelashes is a common reported adverse effect of this drug and of prostaglandin analogs in general since their introduction in the late 1990s.¹ Here we present a case of poliosis and bilateral hypertrichosis of the malar vellus hairs that occurred during use of ophthalmic latanoprost solution for glaucoma treatment.

A 64-year-old woman presented at our department complaining of excessive hair growth in both malar areas. The problem had started 6 months earlier and the hairs had progressively grown in number and diameter since then. Examination revealed hypertrichosis and poliosis of the eyelashes in addition to hypertrichosis of the malar areas. The whitened eyelashes were interspersed among normal-appearing eyelashes in both eyes (Fig. 1). There were no signs of hypertrichosis on any other parts of the body. The patient had had bilateral glaucoma for 4 years, and had been using latanoprost eye drops since diagnosis. She had a history of hypertension and diabetes mellitus and had been taking amlodipine tablets and oral acarbose for the treatment of these diseases for about 8 years. She had no other cutaneous or systemic disorders and the results of routine biochemical and hormonal tests were within normal limits. She denied use of any topicals creams, including sunscreens or corticosteroids, on her face.

Hypertrichosis is the growth of hair that is considered excessive for the age, sex, and race of an individual. It can occur all over the body or be isolated to small patches. $PGF_2\text{-}\alpha$ analogs have been observed to promote hair growth and may have hypertrichotic effects. The mechanisms by which prostaglandins trigger hair growth, however, are not clear. It has been suggested that hypertrichosis of the eyelashes following administration of prostaglandin analogs for glaucoma treatment is probably a result of the induction of the anagen phase in telogen-phase eyelash follicles.² These analogs may also prolong the anagen phase of eyelashes, leading to an increase in eyelash length.³

Eyelash hypertrichosis has been reported as a common adverse effect of ophthalmic latanoprost treatment, with frequency rates as high as 77%⁴ and 50.5%.⁵ Even brief exposure to an ophthalmic prostaglandin analog appears to be associated with eyelash changes. In one study, very brief exposure to latanoprost (<22 days) was reported to produce



Figure 1 Poliosis, with affected eyelashes interspersed among normally pigmented eyelashes.

hypertrichosis similar to that seen with sustained exposure.² Our patient reported hypertrichosis of the vellus hairs of the malar area after 3.5 years of treatment.

Changes in the appearance of hairs other than eyelashes have been reported in a few papers. Reports of hypertrichosis of the vellus hairs of the eyelids,^{1,5} inner canthus,⁶ upper cheek,⁷ and malar regions⁸⁻¹⁰ can be found in the literature.

Chen et al.¹¹ reported poliosis in a series of 7 patients using different $PGF_2\text{-}\alpha$ analogs for primary open-angle glaucoma. The affected lashes were interspersed with normally pigmented lashes. Whole affected lashes were observed to be new, implying that the effect may result from failure of pigmentation in newly stimulated eyelash growth or from stimulated growth of previously inconspicuous white lashes. Our patient did not complain about her white eyelashes as she considered them to be normal age-related changes. It is, however, known that eyelashes do not generally turn white with age, and if they do, they normally only do so at a very late stage.³

Other local adverse effects of $PGF_2\text{-}\alpha$ analogs are iris pigmentation, conjunctival hyperemia, increased pigmentation of the periocular skin, deepening of the eyelid sulcus, periorbital fat atrophy and relative enophthalmos, anterior uveitis, and an increased risk of herpes simplex viral infection recurrence. There have also been some reports of systemic adverse effects, such as symptoms of common cold and upper respiratory tract infection, headache, abnormal liver function tests, asthenia and hirsutism.¹²

We thought it might be interesting to report this infrequently observed case to highlight the importance of considering topical $PGF_2\text{-}\alpha$ analog therapy as a possible cause of poliosis and hypertrichosis of the vellus hairs around eyes.

References

1. Johnstone MA. Hypertrichosis and increased pigmentation of eyelashes and adjacent hair in the region of the ipsilateral eyelids of patients treated with unilateral topical latanoprost. *Am J Ophthalmol.* 1997;124:544-7.

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2. Johnstone MA, Albert DM. Prostaglandin-induced hair growth. *Surv Ophthalmol.* 2002;47 Suppl 1:S185-202.
3. Law SK. Bimatoprost in the treatment of eyelash hypotrichosis. *Clin Ophthalmol.* 2010;4:349-58.
4. Demitsu T, Manabe M, Harima N, Sugiyama T, Yoneda K, Yamada N. Hypertrichosis induced by latanoprost. *J Am Acad Dermatol.* 2001;44:721-3.
5. Inoue K, Wakakura M, Inoue J, Matsuo H, Hara T, Tomita G. Adverse reaction after use of latanoprost in Japanese glaucoma patients. *Nippon Ganka Gakkai Zasshi.* 2006;110:581-7.
6. Monselise A, Shapiro J, Lui H. Inner canthus hypertrichosis: a side effect of prostaglandin analogue treatment for glaucoma. *J Cutan Med Surg.* 2011;15:298-9.
7. Ortiz-Perez S, Olver JM. Hypertrichosis of the upper cheek area associated with travoprost treatment of glaucoma. *Ophthal Plast Reconstr Surg.* 2010;26:376-7.
8. Rouxel AM, Roguedas-Contios AM, Misery L. Malar and ciliary hypertrichosis induced by bimatoprost. *Ann Dermatol Venereol.* 2007;134:780-1.
9. Hart J, Shafranov G. Hypertrichosis of vellus hairs of the malar region after unilateral treatment with bimatoprost. *Am J Ophthalmol.* 2004;137:756-7.
10. Mukhopadhyay R, Plumb A. A rare complication from prostaglandin analogue therapy. *Clin Exp Optom.* 2009;92:137-8.
11. Chen CS, Wells J, Craig JE. Topical prostaglandin F(2alpha) analog induced poliosis. *Am J Ophthalmol.* 2004;137:965-6.
12. Alm A, Grierson I, Shields MB. Side effects associated with prostaglandin analog therapy. *Surv Ophthalmol.* 2008;53 Suppl 1:S93-105.

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Skin Self-examination Using Smartphone Photography to Improve the Early Diagnosis of Melanoma[☆]



Autocontrol fotográfico mediante smartphones para mejorar el diagnóstico precoz del melanoma

To the Editor:

Patient skin self-examination has proven to be very useful in the secondary prevention of melanoma.¹⁻⁴ Various studies show that campaigns to raise awareness and to encourage skin self-examination make it possible to diagnose thinner melanomas, thus improving prognosis.⁵ Self-examination can be optimized by taking photographs according to a specific protocol.⁶ This photographic record facilitates identification of new lesions and reveals significant changes in existing ones. An additional advantage of photographic self-examination systems is that they improve patient adherence and accuracy in self-examination.² Other useful measures in photographic self-examination include comparison of photographs against mole mapping diagrams⁷ and visual images of benign and malignant lesions.

At present, photographic self-examination by patients aimed at secondary prevention of melanoma is not a habitual practice,⁸ even though it has proven to be effective.¹⁻⁴ The reasons for this observation include ignorance of the importance of photographic surveillance, the inconvenience

of taking photographs with a camera from which the images then have to be downloaded and stored on a computer, and the lack of adherence to self-examination due to forgetfulness.

We present a technology-based solution to foster patient self-examination, namely, an application for smartphones (FotoSkin®) that enables patients to take regular photographs of their skin according to a specific protocol (mole mapping). These photographs can then be taken to the clinic in order to provide the dermatologist with a more accurate picture of how moles and other types of skin lesions are evolving (Fig. 1). The application also includes 3 sections aimed at improving patients' knowledge of skin cancer, raising awareness, and, therefore, promoting adherence to self-examination and visits to the dermatologist. The sections are the following: 1) an information section showing the patient the differences between benign lesions and suspicious or malignant lesions; 2) a section with algorithms to determine the phototype, risk of melanoma, and level of actinic damage; and 3) a dynamic section showing the local UV index and providing practical advice on photoprotective measures and healthy sun exposure.

The main objective of FotoSkin® is to act as a photographic record of the patient's moles and other skin lesions that can later be shown to the dermatologist at checkups (Fig. 2). Visualization of changes in the lesions thus improves the dermatologist's diagnostic accuracy and even improves secondary prevention of the melanoma by enabling the patient to see whether the lesions are new or have changed,¹ as well as encouraging the patient to adhere to self-examination and checkups. The secondary objective of FotoSkin® is to improve health education about melanoma, skin cancer, and healthy sun exposure habits.

The application was designed for smartphones and tablets, both of which have several advantages over a computer,⁹ namely, ease of use, rapid photographs and

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