However, they did not employ a standardized timing or dosage for the TA injection. As there is no evidence that injecting TA at 2 days to 1 week before surgery offers additional benefits, we believe our approach of TA injection at conclusion of surgery may be more convenient, and the operative site can be more accurately targeted.

Sterile conjunctival ulceration following subconjunctival TA injection has been reported.[6,7] Exact mechanism was unclear, but underlying autoimmune disease,[7] an anterior interpalpebral injection site,[6] a dose-dependent toxicity, and a bad batch of triamcinolone[6] were proposed as possible causes. Our patients did not have known autoimmune diseases, and our injection site was not exposed in the interpalpebral space. Furthermore, our dosage of TA (1.2 mg) was substantially lower than the dosages routinely used for chronic uveitis (20–40 mg). For these reasons, we believe the risk of conjunctival ulceration associated with our approach should be minimal, although the present series may be too small to address this risk.

In conclusion, intrableb TA injection in bleb-forming filtration surgery is compatible with a desirable clinical outcome, and appears to be safe up to 3 months after surgery. We are evaluating whether intrableb TA injection will offer filtration patients additional clinical benefits when compared to patients receiving topical steroid only, in a randomized controlled trial.

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Sir,

Iris damage and acute pigment dispersion following photo-epilation

Laser-assisted hair removal (photo-epilation) is becoming an increasingly popular treatment. It relies on the principle of selective photothermolysis whereby use of an appropriate wavelength and pulse duration of light causes injury that is confined to the desired target tissue while sparing surrounding structures.[1,2] We report a case of iris damage and acute pigment dispersion after the use of long-pulsed infra-red (LPIR) alexandrite laser for photo-epilation of the eyebrow.

Case report

A 38-year-old woman presented with left ocular discomfort associated with photophobia, redness, and blurred vision. She had undergone photo-epilation of her eyebrows earlier that day with a 755 nm LPIR alexandrite laser (20 ms pulse duration, 22 J/cm^2 fluence, 10 mm diameter spot). Although treatment to her right eyebrow

was uneventful, she had experienced extreme discomfort when the laser beam was switched to the area below her left eyebrow.

Examination revealed a constricted left pupil with marked anterior chamber (AC) activity but normal intraocular pressure (IOP) and visual acuity (VA). Acute anterior uveitis was diagnosed and treatment with a topical steroid and cycloplegic started. Upon follow-up, AC activity persisted and the IOP increased to 37 mmHg. There was also evidence of pigment dispersion in the AC with pigmentation of the trabecular meshwork (Figure 1). A topical β-blocker was added to her treatment.

Eight weeks after initial presentation, this patient only had minimal photophobia. The left eye was white and quiet with normal IOP on medication. A marked superior iris transillumination defect was then apparent (Figure 2). No other features of pigment dispersion syndrome were evident clinically and an Optical Coherence Tomography scan ruled out posterior bowing of the iris. There was no history of herpes zoster ophthalmicus. It was concluded that all the features of this case were attributable to accidental iris damage with the LPIR laser resulting in acute pigment dispersion and raised IOP. The laser protection agency was notified and LPIR laser treatment within the peri-orbital region has since been suspended.

Comment

In photo-epilation, use of an appropriate wavelength and pulse duration of light causes selective thermal damage mediated by follicular melanin.[1,2] The alexandrite laser system, with a wavelength of 755 nm, is well absorbed by follicular melanin. The amount of energy absorbed also

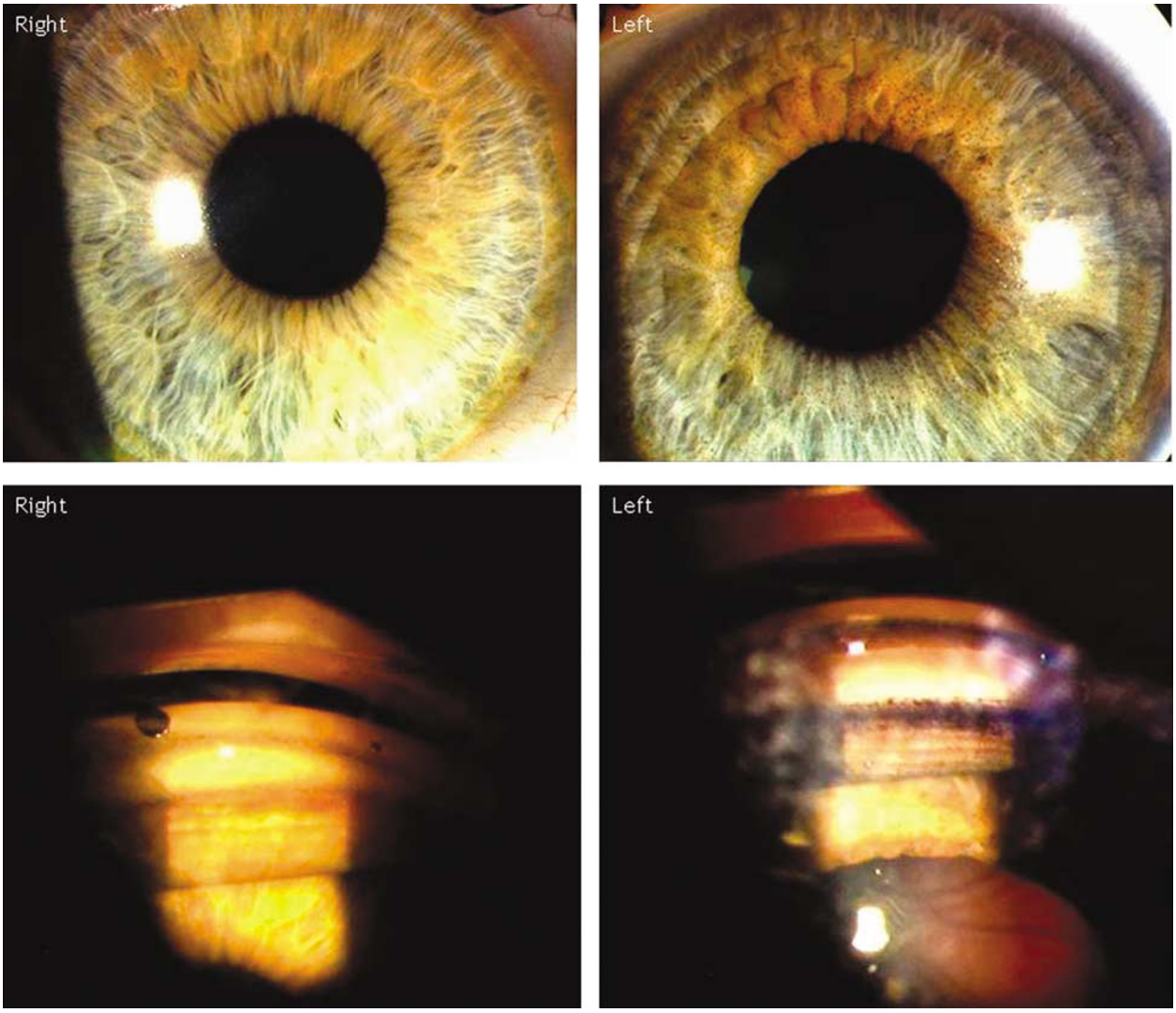

Figure 1 Pigment dispersion over iris surface with increased pigmentation of the trabecular meshwork.

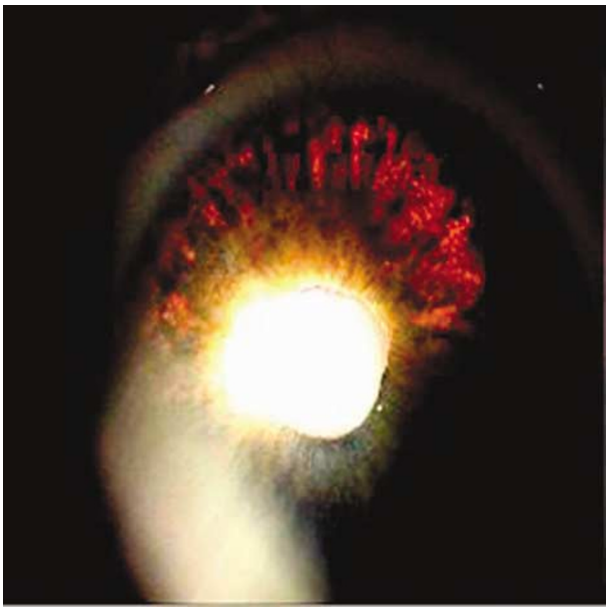

Figure 2 Superior iris transillumination defect.

depends on interference from other melanin-containing structures.[2,3] Hair follicles lie about 3 mm below the skin surface. However, thermal damage from the alexandrite laser can occur at several millimetres depending on user settings and skin type.

Before photo-epilation, this patient had her eyes closed and covered with damp cotton pads. Owing to the Bell's phenomenon, elevation of the globe with lid closure would have resulted in proximity of the superior iris to the area being treated. As the iris is a melanin-containing structure, exposure to the penetrating laser beam would have resulted in absorption of energy and subsequent damage with inflammation and pigment dispersion. The presence of superior iris atrophy is consistent with this mechanism.

At follow-up after 1 year, this patient was on no treatment to the affected eye and had normal VA and IOP. Long-term ocular complications from laser damage in this case are unknown. Recent guidelines have warned against the high potential for thermal damage to the iris and retina in patients who have photo-epilation close to the eye.[4] Strict safety measures, such as metal lenses, are required in these circumstances.

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Sir,

Evidence of Waite–Beetham lines in the corneas of diabetic patients as detected by *in vivo* confocal microscopy

Corneas of diabetic patients exhibit remarkable abnormalities of nerves, basement membranes, and cellular layers.[1] Confocal microscopy has become a popular technique to observe the structure of cornea *in vivo* in several disease states afflicting the cornea including diabetes mellitus.[2,3] Among the less common observations in the corneas of diabetic patients are the faint vertical lines at the level of Descemet's membrane and endothelium, initially described by Waite and Beetham[4] and Henkind and Wise.[5] The purpose of this paper was to report the characteristics and incidence of Waite–Beetham lines in the corneas of diabetic patients.

Case report

The study was carried out with approval from the Institutional Review Board. Clinical evaluation and data collection of all patients was performed by a single ophthalmologist (MI). *In vivo* confocal microscopy were performed using Confoscan 3.0 (Vigonza, Italy) attached to an immersion lens (Achroplan ×40/0.75W, Zeiss, Germany). The presence of vertical lines at the level of Descemet's membrane and endothelial cell counts were evaluated by a single observer (MCM) who was masked