

Intense Pulsed Light as a new treatment for blepharokeratoconjunctivitis

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Introduction

Blepharokeratoconjunctivitis (BKC) refers to a series of conjunctival and corneal diseases secondary to blepharitis. Intense pulsed light (IPL) devices contain high-intensity light sources, which emit polychromatic light from 515 nm to 1200 nm. We report the effect of IPL in three cases of BKC.

METHODS

The first case presented eyelid congestion; crusting and scaling at the eyelash root; meibomian gland obstruction and conjunctival hyperemia in both eyes. The left eye presented old central corneal scarring with neovascularization. BKC was diagnosed. He was treated with three times of IPL and traditional treatment. The second case presented scaling and sleeve-form crusting at the eyelash root; meibomian gland arranged irregularly with opening obstruction; marked conjunctival hyperemia in both eyes. The left eye presented opacities with much neovascularization. In vivo confocal microscopy and optical microscopy examination of eyelid lash showed there were lots of Demodex folliculorum mites in the eyelash follicles. Demodex folliculorum mites infestation and BKC were diagnosed. She was treated with once of IPL and traditional treatment. The third case presented eyelid congestion; meibomian gland pouting and capping; conjunctival hyperemia and marginal infiltrates of cornea with pannus formation in both eyes. BKC was diagnosed. She was treated with twice of IPL and traditional treatment.

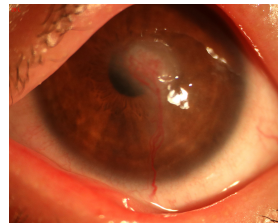
DISCUSSION

BKC is the result of an underlying cytokine and inflammatory-mediated process affecting both the meibomian glands and the ocular surface. Compared with traditional treatment requiring at least 1 month, IPL treatment shortened the course of BKC. IPL therapy is also a safe and effective treatment for BKC.

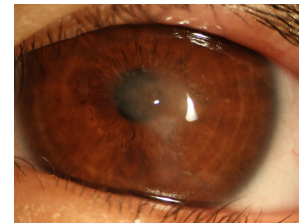
RESULTS

The first case recovered within 17 days. The second case recovered within 23 days. The third case recovered within 14 days. And their ocular surfaces were stable at 1-month follow-up.

case1

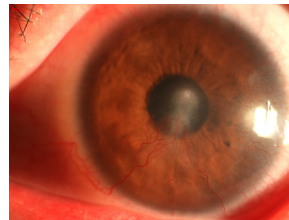


Before treatment: eyelid congestion; crusting and scaling at the eyelash root, meibomian gland obstruction and moderate conjunctival hyperemia; old central corneal scarring with neovascularization.

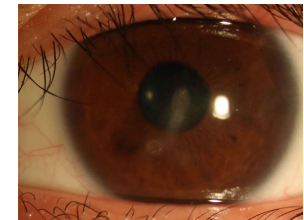


After treatment: the crusting and scaling disappeared; the obstruction of meibomian gland was disappeared; corneal neovascularization was faded away and the lesion reduced.

case2

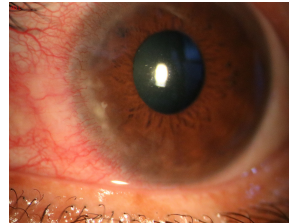


Before treatment: scaling and sleeve-form crusting at the eyelash root, meibomian gland arranged irregularly with opening obstruction; marked conjunctival hyperemia and opacities covered the pupil accompanied with much neovascularization.

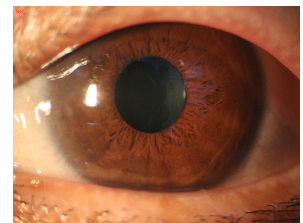


After treatment: scaling and sleeve-form crusting disappeared; obstruction of meibomian gland was reduced; conjunctival hyperemia and corneal neovascularization disappeared; the opacities reduced.

case3



Before treatment: meibomian gland pouting and capping; conjunctival hyperemia and marginal infiltrates of cornea with pannus formation.



After treatment: conjunctival hyperemia disappeared; meibomian gland pouting and capping disappeared; the pannus faded away.

ACKNOWLEDGEMENTS

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