

Oxybuprocaine abuse

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Keratopathy following ophthalmic administration: case report

A 42-year-old woman developed keratopathy after abuse of topical oxybuprocaine eyedrops.

The woman underwent bilateral laser-assisted subepithelial keratectomy (LASEK) for myopia. She was given topical 0.4% oxybuprocaine [Novesin] for pain relief. She was advised to use it minimally for intolerable pain only. In the first postoperative week, she had intense pain and applied three bottles of oxybuprocaine, in a total of 11mL. One week after LASEK, a bilateral central corneal epithelial defect was noted.

The woman received topical lubricants, a bandage contact lens (BCL), topical fluorometholone and diclofenac ophthalmic solution for 20 days. Healing was unsatisfactory. Two months after LASEK, she was referred to an ophthalmology department. Her best-corrected visual acuity (BCVA) was 20/200 in her right eye and 20/60 in her left eye. She had an epithelial defect that involved the entire flap in her right eye. She also had diffuse corneal stromal haze and central corneal thinning. Her intraocular pressure was > 30mm Hg in her right eye. In her left eye, she had epithelial oedema and bullae. She was hospitalised and underwent insertion of collagen punctal plugs. She received hourly autologous serum. She also received oral indometacin, doxycycline, ascorbic acid, oral acetazolamide and topical timolol and latanoprost. The epithelial defect decreased in size and the epithelial bullae resolved. However, she had progressive right corneal thinning. Three weeks after the initial referral, she received cyanoacrylate glue and a BCL over the descemetocele. The left epithelial and stromal oedema resolved slowly and formed a stromal scar. Gradually, the scar cleared to result in a BCVA of 20/25. In her right eye, the glue remained with a resultant BCVA of 20/800. Thirteen months after LASEK, her inflammation was gradually subsiding. She underwent penetrating keratoplasty in her right eye, which healed uneventfully with a final BCVA of 20/40.

Rao SK, et al. Topical anesthesia-induced keratopathy after laser-assisted subepithelial keratectomy. *Journal of Cataract and Refractive Surgery* 33:

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