

Contact Lenses in Aphakia Aphakic Surgery and its Implications for Contact Lens Fitting*

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This paper discusses complications deriving from cataract extraction which are relevant to the fitting of contact lenses.

Ptosis, possibly associated with upper fornix oedema, and papillary tarsal conjunctivitis, may occur for several months; if there is concurrent infection, contact lens fitting must be delayed.

In unilateral aphakia, weakness of the superior rectus has been reported as inducing vertical tropia, thus impeding the achievement of binocular single vision with a contact lens.

Deep sutures may cause corneal distortion, while superficial ones may bring about mucus accumulation. In either case the contact lens fitter encounters difficulties. However, a contact lens may have a soothing effect if it covers an irritating suture.

Sections made behind the limbus usually produce astigmatism against the rule, the cornea becoming flatter in the vertical meridian. Corneal sections tend to produce astigmatism with the rule, and the cornea becomes flatter in the horizontal meridian. The contact lens fitter has to decide on the best way to correct astigmatism. Its reduction is helped by the central rigidity of contact lenses. For highly astigmatic corneas, hard lenses with toric back peripheral surfaces often provide the best solution. Alternatively, overcorrection with spectacles can be tried, or soft toric lenses can be used.

Following traumatic cataract it may be desirable to use hard or even scleral lenses.

Sensation in the cornea tends to decline, and contact lens tolerance to improve, as the size of the section increases. With phacoemulsification, however, corneal sensation may be almost normal, and the eye may not tolerate hard, large contact lenses. Furthermore, an irritable eye syndrome after surgery may make the wearing of contact lenses impossible.

Conjunctival blebs may present problems. In the case of filtering blebs, contact lenses should not be

fitted because of the risk of infection and endophthalmitis.

Nor should contact lenses be given to a patient with a leaking section. If loss of the anterior chamber has occurred, a bandage soft lens can be used.

High intraocular pressure may persist after cataract extraction. The associated effects confronting the contact lens fitter include corneal oedema. In the aphakic eye, large thick soft lenses have caused a rise in intraocular pressure. Where glaucoma is treated surgically, the contact lens fitter has to contend with the danger of infection or disruption of filtering mechanisms.

In the event of photophobia associated with pupil abnormality, tinting the contact lens may be beneficial. The use of atropine where pupil dilation persists can cause dryness, which makes the wearing of contact lenses difficult. A gradual development of very fine posterior capsule opacities in a central position many weeks after surgery may confuse the contact lens fitter.

If there is adhesion of vitreous to the epithelium, the latter may become loose and cystic spaces may develop. In this event the bandage lens can provide interim treatment. The endothelium should be carefully examined before lens fitting if there is even a suspicion of endothelial decompensation.

Vitreous traction can produce retinal detachment. In elderly patients there is a possibility that maculopathy is caused by the fitting of contact lenses.

Hypopyon has been reported as a consequence of the wearing of soft lenses. Contact lens wear can cause anoxia, leading to increased lactate levels in the anterior chamber and, possibly, to anterior uveitis.

An understanding of the problems considered in this paper is essential if the contact lens practitioner is to achieve good management of patients after cataract extraction.

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