



Fig. 1. Anterior segment photograph after fluorescein instillation.

Comment

Contact lenses have a wide range of effects on the eye including decreased corneal epithelial metabolic rate, epithelial microcysts and reduced adhesion and hypoaesthesia.²⁻⁴ All these changes are reversible soon after discontinuing wear. Conjunctival hypoaesthesia has been documented with hard corneal contact lenses within a crescent area below the cornea corresponding to the low riding of the lens.

The contact lens surface rapidly becomes coated with material from the tear film including bacteria, cell debris, mucus and proteins. The acquisition of this coating can result in an allergic response clinically evident as papillary conjunctivitis. Low-grade inflammation has been detected in asymptomatic lens wearers.⁵ Examples of this subclinical immune response include increased vascular permeability of the conjunctiva and elevated levels of neutrophil chemotactic factor.

It is of interest that this soft contact lens remained as a comfortable foreign body for a protracted length of time. Several mechanisms may be involved. Conjunctival hypoaesthesia related to the lens itself, or as a consequence of multiple sclerosis, are possible explanations. The acellular material coating the contact lens may present a subthreshold immunological stimulus. An understanding of the immunobiology of asymptomatic contact lens wear would assist in the understanding of the pathophysiology of lens intolerance.

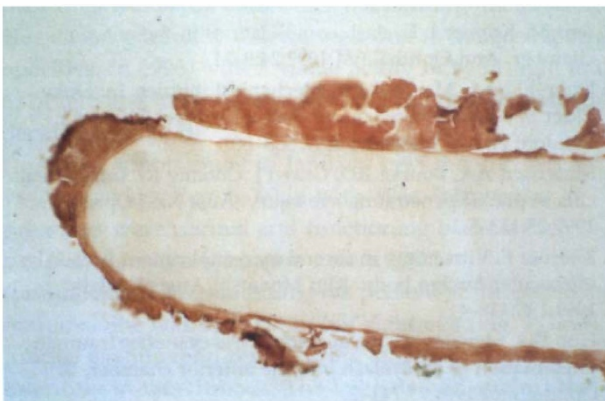


Fig. 2. Contact lens with surrounding material stained with H&E.

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S.O. Brannan
D.K. Chitkara
Department of Ophthalmology
Walton Hospital
Liverpool, UK

Ms S.O. Brannan ✉
Department of Ophthalmology
Walton Hospital
Rice Lane
Liverpool L9 1AE, UK
Tel: +44 (0)151 525 3611
Fax: +44 (0)151 529 4283

Sir,

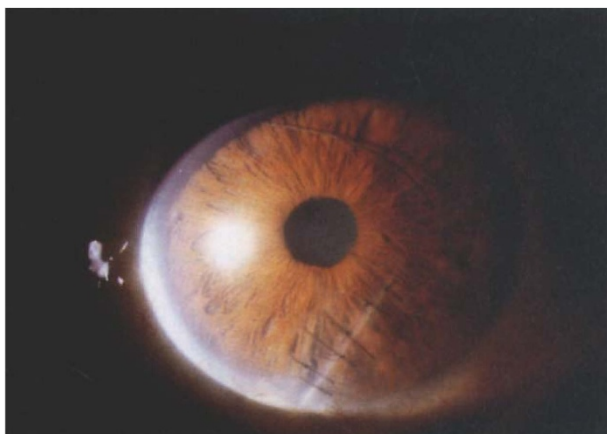
Retained eyelashes in the anterior chamber following corneal perforation

Retained intracameral foreign bodies following corneal perforating injuries are rare. Several cases of retained cilia were reported following perforating injury.¹⁻⁴ These lashes may cause variable responses in the eye, ranging from no response, to severe uveitis or endophthalmitis. We report a case of retained eyelashes in the anterior chamber that were found on a routine examination 2 months following suturing of a corneal perforation.

Case report

A 49-year-old man was referred to the Department of Ophthalmology because of penetrating corneal trauma caused by a knife. On admission, a stab wound was found including the left side of his nose and the lower and upper lids. Visual acuity was 20/20 in the right eye and 20/200 in his left eye. A linear cut was observed in the left cornea, beginning in the sclera, 1 mm from the limbus at 7 clock-hours, and extending superotemporally for 7 mm. There was no iris prolapse, and the anterior chamber was shallow with a mild cellular reaction. Under general anaesthesia the anterior chamber was thoroughly washed out with balanced salt solution, and the corneal wound was sutured. At the end of surgery the anterior chamber was deep and no foreign bodies were observed. Subconjunctival gentamicin and cephalosporin were injected. Topical 5% cephalosporin, 1.4% gentamicin and 0.1% dexamethasone were applied six times daily for 1 week.

Two months following surgery, a solitary eyelash was found in the anterior chamber (Fig. 1). The tip of the lash was embedded within the superior iris stroma, while its root was floating in the aqueous humour. A mild cellular



(a)



(b)

Fig. 1. (a) An eyelash in the anterior chamber is evident 2 months following repair of a corneal perforation. (b) The tip of the lash is embedded in the iris stroma, while its root is freely floating within the chamber.

reaction was observed in the chamber. The pupil was round and reactive, and the lens was clear. An attempt was made to remove the eyelash. During the procedure, a second eyelash was observed. Viscoelastic was injected to deepen the anterior chamber. The lashes were pushed and disappeared in the periphery. Only one cilium could be visualised and removed. Post-operatively, topical corticosteroids and fortified antibiotics were used for 2 weeks. The patient's visual acuity is currently 20/30 in the left eye, and the anterior chamber is quiet.

Comment

Cilia may gain entrance to the eye during an ocular perforation or during surgery, and remain unnoticed. In a recent case series, retained intraocular cilia were observed between 6 and 32 years following ocular perforation.¹ Another report described an intraocular cilium in the anterior chamber that remained there for 15 years.² Retained cilia in the anterior chamber may cause no inflammatory response, or, alternatively, a severe reaction such as uveitis,^{3,4} endophthalmitis,^{5,6} iris cyst formation^{1,7} or corneal oedema may be observed.¹ The lack of an intraocular infection in most of the cases, as well as in our case, can be explained by the pre-operative use of disinfecting solutions, that may gain access to the open chamber, or by the post-operative antibiotic coverage.

The location of the cilia is also variable. They may be located in the anterior chamber, iris, lens,⁸ or vitreous,⁵ or be embedded in the retina following a successful repair of perforating injury.⁹ The lashes may be obscured from the surgeon's view if they are located in the irido-corneal angle, in the ciliary body, or gain access to the vitreous through a peripheral corneo-scleral perforation.

The treatment of intraocular cilia is controversial. Some advocate removal of any intraocular cilia,¹ while others prefer observation when no inflammation is observed.¹⁰ In our patient the cilium caused a mild intraocular inflammation, and was therefore removed. While irrigating the anterior chamber, another hidden cilium was discovered. However, intraocular injection of

viscoelastic pushed the second cilium back into the angle, where it could not be detected and removed. We feel that injection of viscoelastic into the chamber during primary wound repair may push some foreign bodies towards the periphery of the chamber and keep them undetected. Our failure to remove the second cilium, and the lack of inflammatory response in our patient, indicate that conservative management with observation alone can be as good a solution as surgical intervention in such a case.

Retained eyelashes are probably more common than reported. Prior to a primary surgical repair, careful evaluation of the chamber under high magnification is warranted. Thorough irrigation of the anterior chamber is advised at the end of surgery, and one should try to clear the viscoelastic from the chamber. Careful post-operative evaluation must include gonioscopy, ultrasound biomicroscopy and ultrasound of the posterior segment, to exclude any cilia or retained foreign bodies that are hidden from the surgeon's view.

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Abraham Solomon
Itai Chowers
Joseph Frucht-Pery
Department of Ophthalmology
Hadassah University Hospital
and
Hebrew University - Hadassah Medical School
Jerusalem
Israel

Abraham Solomon, MD ✉
Department of Ophthalmology
Hadassah University Hospital
PO Box 12000
91120 Jerusalem
Israel

Fax: +972 2 6434434
e-mail: avisol@md2.huji.ac.il

Sir,

Pseudoexfoliation syndrome and spontaneous lens dislocation

Pseudoexfoliation syndrome (PXS) is characterised by deposits of white, fibrillogranular material in and around the eye. Its association with secondary open angle glaucoma,¹ poor pupillary dilatation² and predisposition to zonular dehiscence during cataract surgery³ is well known. We report an unusual case of bilateral spontaneous dislocation of lens in a patient with PXS and discuss its implications.

Case report

An 88-year-old white woman attended our clinic in early 1998 for monitoring of her glaucoma. She complained of sudden deterioration of vision 2 months prior to this visit. There was no history of trauma. In 1981 she had been diagnosed as having open angle glaucoma secondary to PXS. In 1986 she had simultaneous bilateral trabeculectomies due to progressive visual field loss despite maximal topical therapy. The surgery was uncomplicated and post-operatively her intraocular pressures were well controlled without any medication. Her vision gradually deteriorated due to increasing lens opacities. In 1996, with a visual acuity of 6/18 right and 6/24 left, she was offered cataract surgery. The patient decided against it.

At her appointment in January 1998 the uncorrected vision was less than 6/60 in both eyes. Intraocular pressures were normal and functioning blebs with peripheral iridotomies were noted. PXM (pseudoexfoliative material) was present at the pupillary margins. She was aphakic in her right eye (Fig. 1) and fundus examination revealed the lens to be dislocated inferiorly in the vitreous. The left lens had subluxated inferiorly and the superior equator of the lens with PXM was visible in the mid-pupillary area (Fig. 2). There was

no evidence of uveitis and the cup:disc ratio was 0.80 in both eyes. Her visual acuity was improved with an aphakic correction to 6/9 right and 6/24 left. She was given a spherical prescription of +11.75 dioptres right and +6.00 dioptres left. As the patient was pleased with her vision and there were no complications due to the dislocated lenses, surgical intervention was thought to be unnecessary.

Comment

Recent studies have demonstrated that pseudoexfoliation is a systemic disorder affecting various organs.⁴ There is an association with elastosis⁵ and an increased vascular risk has also been suggested.⁶ However, the main cause for concern for an ophthalmic surgeon is the predisposition of these patients to poor pupillary dilatation and weak lens zonule, as these can contribute to intra-operative complications such as vitreous loss.

The only previous publication on spontaneous lens dislocation in PXS reported two patients with unilateral dislocated lenses.⁷ Both these patients were, like the patient in our report, in their mid- to late eighties. It seems that increasing age and the progressive nature of PXS combine to further weaken the lens zonules resulting in spontaneous lens dislocation. Although our patient had previous bilateral trabeculectomies she was not noted to have damaged her zonules during the procedure. In the long follow-up period there were no signs suggestive of subluxated lenses.

Our case demonstrates that PXS should be considered as a differential diagnosis in older patients with spontaneous lens dislocation. This case further emphasises the extreme care that needs to be taken while performing cataract surgery on elderly patients with PXS. During phacoemulsification, careful grooving technique must be used to minimise physical forces on the lens nucleus and zonules. Cracking technique may put undue strain on lens zonules and therefore a chopping technique is preferred. Patients with PXS also need to be made aware of the possibility of spontaneous lens dislocation and there may be an argument for performing cataract surgery early in this group of patients.

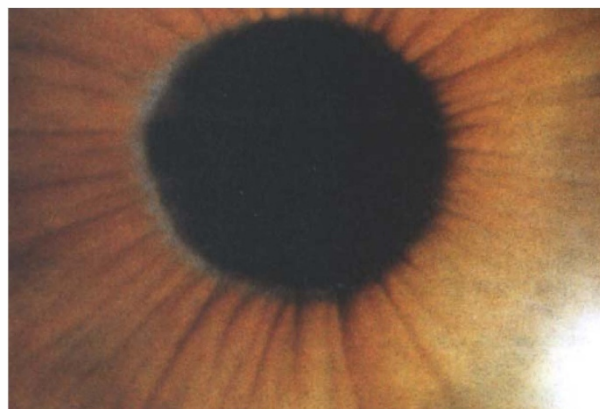


Fig. 1. Right eye: aphakic, pseudoexfoliative material (PXM) at the pupillary margin.