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Sir,
Phacoemulsification and intraocular lens implantation following pars plana vitrectomy: a prospective study

I congratulate Ahfat *et al*¹ for quantifying the well-recognized complications of phacoemulsification cataract surgery following vitrectomy. Cataract will eventually develop in almost all patients after vitrectomy. The obvious solution to preventing such difficult surgery is to combine lens removal with vitrectomy at the time of the original operation even if no lens opacity is present. This has been my practice for the past 3 years in presbyopic patients. The lens having lost its ability to accommodate can be replaced by an intraocular lens with no detriment to the patient. Combined surgery has many other advantages for the surgeon including excellent visibility during vitrectomy (especially when using wide-angle viewing systems), the ability to perform a more extensive vitrectomy and creating space for larger gas or oil fills.² ‘Core vitrectomy’ can be avoided as it carries the risk of incomplete vitreous separation at the time of surgery

with continued separation in the postoperative period with possible retinal tear formation.³ The advantage to the patient is not having to return for further surgery.

Most vitreoretinal surgeons in the UK have extensive cataract experience, and combining the surgery does not significantly prolong the procedure. It is important, however, to keep a stable anterior chamber during vitrectomy, and subsequent intraocular lens insertion to keep anterior chamber inflammation to the postoperative period to a minimum. I would not routinely advocate combined surgery in diabetics who are at risk of increased intraocular inflammation and rubeosis following lens removal or in patients with active uveitis unless significant cataract was present.

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Sir,
Zonular disinsertion five years after implantation of a plate haptic silicone intraocular lens

We report a case in which progressive anterior capsular fibrosis associated with a plate haptic silicone intraocular lens led to zonular disinsertion and dislocation of the capsular bag and implant 5 years after uncomplicated surgery. It is proposed that the same mechanism that leads to capsular phimosis may go on to cause late zonular disinsertion even up to 5 years after intraocular lens implantation.

Case report

A 76 year old gentleman with severe retinitis pigmentosa had undergone left sided cataract surgery 5 years previously with in-the-bag implantation of a plate haptic silicone intraocular lens (IOL) (C11UB, Chiron Vision Corporation, Claremont, CA, USA). There were no intraoperative complications and recovery was uneventful with corrected visual acuity of 6/9 in the operated eye. There was no pre-operative evidence of pseudoexfoliation or other clinical suspicion of zonular instability, nor history of blunt trauma to the eye, either pre or postoperatively.

The fellow eye had been operated upon 2 years after. There was no clinical suspicion of zonular instability noted preoperatively. Surgery was complicated by an intraoperative anterior capsule tear, which led to the implantation of a rigid polymethylmethacrylate IOL (MC550, Chiron Vision Corporation, Claremont, CA, USA). Laser posterior capsulotomy was performed 5 months after initial surgery due to posterior capsule opacification.

Mild phacodonesis and posterior capsule opacification were noted in the left eye 4 years after surgery, however capsulotomy was deferred as the visual axis was clear with corrected acuity of 6/18. During the 2 months prior to re-presentation, the patient had noticed that the vision in his left eye had become increasingly foggy. Visual acuity in the affected eye was hand movements improving to 6/24 with pinhole, and slit lamp examination showed marked iridodonesis. There was extensive capsular fibrosis with disinsertion of the superior zonules. The IOL implant within the capsular bag was seen hanging by a few inferior zonular fibres alone (Figure 1). The anterior vitreous face appeared intact with no evidence of vitreous prolapse.

At subsequent surgery, the dislocated lens implant within the capsular bag was grasped through the pupil plane using utrata forceps and removed via a 5 mm corneal section. (Figure 2). No vitreous loss occurred and a 15 dioptre anterior chamber lens (MTA4U0, Alcon Laboratories, Fort Worth, TX, USA) was implanted. The patient made a good recovery from surgery with corrected acuity of 6/12 3 weeks postoperatively.

Comment

Posterior dislocation of plate haptic silicone IOLs in the immediate postoperative period and up to 26 months following Nd:YAG capsulotomy is well recognised.¹⁻⁵

There is minimal adherence between silicone IOLs and the surrounding capsular tissues when compared to lenses of other biomaterials.⁶ Capsular fibrosis due to fibrous metaplasia of residual lens epithelial cells is seen to occur with silicone IOLs.^{7,8} This generates a centripetal

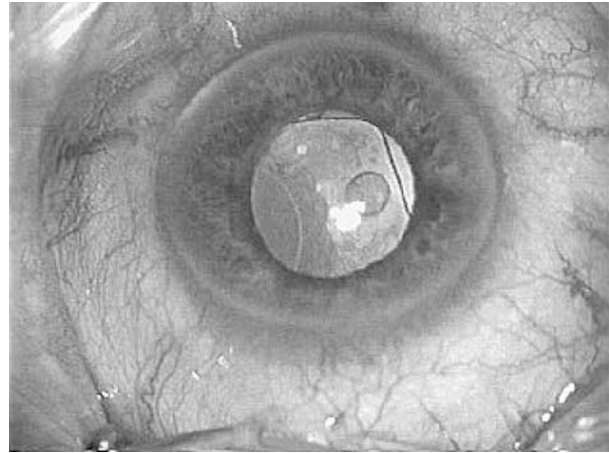


Figure 1 Inferiorly displaced plate haptic lens implant, attached only by a few inferior zonules.

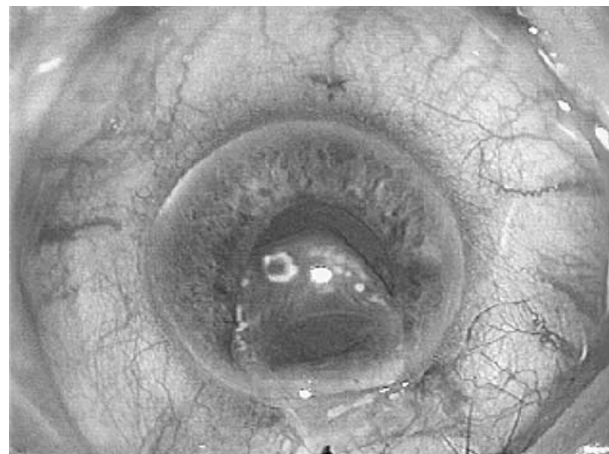


Figure 2 Removal of primary implant via corneal incision.

force constricting the anterior capsular aperture. Progressive fibrosis of the anterior capsular rim leads to tension on the zonule insertion.

Cochener *et al.*⁹ prospectively evaluated the progressive contraction of the anterior capsular opening in a series of PMMA and three-piece silicone IOLs. They reported a significantly higher rate of contraction with the silicone cohort. This led them to suggest that silicone IOL implantation should be avoided in those eyes at risk from contraction of the capsulorhexis.

We believe the case described to be unique with progressive anterior capsular fibrosis causing disinsertion of the zonule 5 years after implantation of a plate haptic silicone IOL. It highlights an unusual complication of progressive anterior capsular fibrosis over a 5 year period, despite no evidence suggestive of zonular weakness prior to cataract surgery, no history of trauma and the absence of Nd:YAG capsulotomy. It may therefore be prudent to take caution with the

implantation of plate haptic silicone IOLs in eyes with evidence of zonular instability or those conditions with which zonular weakness is associated.

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Sir,
Choroidal neovascularization secondary to choroidal osteoma: successful treatment with photodynamic therapy

Case report

A 50-year-old white woman was referred for evaluation of an amelanotic choroidal lesion in the left

eye. She had presented to her ophthalmologist with a recent onset of blurred vision of 2 weeks duration. Her past ocular history, medical history, and family history were negative. On examination, the best corrected visual acuity was 6/6 in the right eye and 6/9 in the left eye. Anterior segment examination of both eyes and fundus evaluation of the right eye was unremarkable. Ophthalmoscopic evaluation of the left eye revealed a solitary amelanotic choroidal lesion in the superior macular region. The lesion was about 6 mm × 5 mm in basal dimension and was minimally elevated. The margins were scalloped. Overlying retinal haemorrhages and subretinal fluid, which extended into the foveal region, were also observed (Figure 1a). B-scan ultrasonography demonstrated high reflectivity at the level of the choroid suggestive of calcium deposition (Figure 1b). On fluorescein angiography the lesion revealed early patchy hyperfluorescence and late staining. In addition, overlying the posterior aspect of the choroidal lesion, lacy hyperfluorescence indicative of extrafoveal classic choroidal neovascularization was present (Figure 1c). A diagnosis of choroidal osteoma with choroidal neovascularization was made. Photodynamic therapy (PDT) according to the TAP study protocol was performed without any complications.¹ A total of three sessions were performed at 6 weeks interval under fluorescein angiographic guidance. Following completion of therapy, the vision improved to 6/6. Ophthalmoscopically a greyish subretinal fibrotic membrane was noted in the treated area with total resolution of subretinal fluid and retinal haemorrhages (Figure 1d). Complete closure of choroidal neovascularization was seen on fluorescein angiogram (Figure 1e). At a 6-month follow-up visit, additional PDT was performed to treat a posterior marginal recurrence. She has remained stable for 6 months following the last PDT with a final visual acuity of 6/36.

Comments

The term choroidal osteoma was coined by Gass in 1978 when he described four healthy young women with characteristic ophthalmoscopic findings of slightly elevated, yellowish, juxtapapillary, choroidal tumour with sharp geographic borders.² These tumors demonstrate evidence of bone formation in the choroid and are believed to be choristomatous in origin.³ The majority of patients with choroidal osteoma maintain good vision. However, there is increasing probability of loss of vision with increasing duration of follow-up. In a follow-up study of 36 patients,