CASE REPORT

Bilateral Anterior Chamber Intraocular Lenses Dislocation in a Patient with Habitual Eye Rubbing

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Summary

A 61-year-old Chinese man presented with bilateral posteriorly dislocated anterior chamber intraocular lenses (AC IOLs) one year after successful vitrectomy, removal of bilateral dislocated mature cataractous lenses and AC IOLs implantation. A thorough clinical evaluation revealed habitual eye rubbing as the only possible cause.

Key Words: Lens dislocation, Intraocular lens, Habitual eye rubbing

Introduction

Dislocation of an intraocular lens (IOL) implant is not an uncommon clinical situation. The reported incidence range from 0.2% to 1.8% [1]. An IOL may dislocate posteriorly into the vitreous cavity or the suprachoroidal space; anteriorly into the subconjunctival space or it may be extruded completely from the eye. Posterior dislocation of an anterior chamber IOL is very rare as the haptics of the IOL rest in the anterior chamber angle and the iris usually provides a stable support for the optics. We report an unusual case of bilateral posterior dislocation of anterior chamber IOLs secondary to habitual eye rubbing.

Case Report

A 61-year-old Chinese man who had a chronic habit of rubbing his eyes presented to the vitreoretinal unit with bilateral posterior dislocation of mature cataractous lenses. He had no significant medical illness apart from hypertension and ischaemic heart disease. His best corrected visual acuity was 6/9 in his right eye and 6/6 in the left eye. Apart from a mild iridodonesis and posterior dislocation of mature cataractous lens in each eye, there were no other significant findings in the anterior or posterior segment examination. No pseudoexfoliation or features suggestive of previous ocular trauma was noted. The intraocular pressure was normal in both eyes. Systemic examination did not reveal any features suggestive of Marfan Syndrome, homocystinuria, Weill-Marchesani Syndrome or other metabolic disorders. There were no signs of facial atopic dermatitis or ocular allergy to account for the habit of eye rubbing.

Vitrectomy and removal of the dislocated cataractous lenses were done for both eyes sequentially. A polymethylmethacrylate anterior chamber intraocular lens was implanted in each eye. The procedures were uncomplicated. However, the patient returned with wound dehiscence in the right eye one month postoperatively, presumably due to eye rubbing, which required secondary suturing. Thereafter, his best corrected vision was 6/9 in each eye.

One year later, the patient presented with complaints of blurring of vision in both eyes. According to his wife, the patient had continued to rub his eyes uncontrollably. Both the anterior chamber IOLs were noted to be dislocated into the inferotemporal vitreous

This article was accepted: 16 October 2004

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cavity, resting just on the retina. The pupil was distorted in the right eye with sphincteric tear superotemporally and an angle recession of 180 degrees nasally was noted. Interestingly, there were no similar features of trauma in the anterior segment of the left eye. The intraocular pressure was 10 mm Hg in each eye. There was no retinal break or retinal detachment noted in both eyes (Fig. 1 and Fig.2).

Both the anterior chmaber IOLs were removed through pars plana vitrectomy and delivered through the original superior limbal wound. The surgeries were uncomplicated. The patient was prescribed aphakic glasses thereafter. Best corrected vision was 6/12 in each eye.

Discussion

To our knowledge this is the first report of bilateral posterior dislocation of anterior chamber IOLs in a patient with habitual eye rubbing. Posteriorly dislocated IOL usually involves posterior chamber IOL or scleral fixated IOL. Previously reported cases of dislocated anterior chamber IOLs were into the subconjunctival space, inferior cyclodialysis cleft and a rather unusual location in the suprachoroidal space [2]. Yamazaki et al reported a case of subluxation of posterior chamber IOL in a patient with habitual eye rubbing secondary to itchiness related to facial atopic dermatitis, though in this case it was a uniocular dislocation of posterior chamber IOL in a bilaterally pseudophakic patient[3].

This case is highly unusual as the habitual eye rubbing did not only lead to bilateral posterior dislocation of mature cataractous lenses, but also caused the posterior dislocation of anterior chamber IOLs in both eyes. In the absence of trauma, elderly patients with cataractous lenses may have them displaced or spontaneously dislocated if the cataract is mature or hypermature. The lens is gradually displaced posteriorly due to zonular weakness associated with aging and some lenses may finally dislocate spontaneously. Therefore it is conceivable that in this patient that with constant pressure exerted onto the globes when he rubbed his eyes, the mature cataract with its weakened zonules could have been dislocated. However, it is difficult to postulate a similar mechanism of injury to account for the posterior dislocation of the anterior chamber IOLs in both his eyes as an anterior chamber IOL is located in the anterior segment of the eye and should be supported by iris and anterior chamber angle structures. The patient denied any direct trauma to the eye, but he is an elderly patient and may have injured his eyes unknowingly. However, the evidence of a traumatic dislocation was present only in the right eye but not in the left eye. It could still be possible that the same amount of pressure that caused the dislocation of the mature cataractous lenses also directly led to the dislocation of anterior chamber IOLs. Nevertheless, both eyes have done surprisingly well for the amount of trauma and postoperative disruption.

This case report highlights the rare ocular complication of habitual eye rubbing in a patient who initially had bilateral dislocation of mature cataractous lenses and

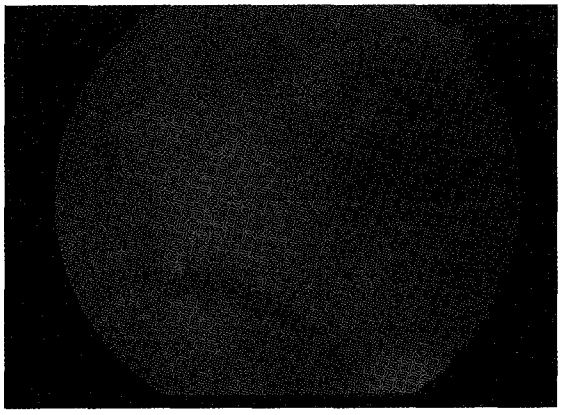

Fig. 1: Fundus photograph of the right eye showing edge of the AC IOL lying on the retina inferotemporally

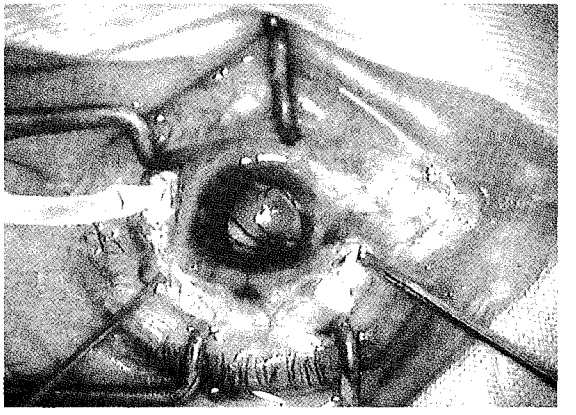

Fig. 2: Intraoperative photograph of the left eye showing removal of the AC IOL through pars plana vitrectomy

following cataract surgeries with anterior chamber IOL implantations had bilateral posterior dislocation of the anterior chamber IOLs. This case suggests that a patient with spontaneous dislocation of cataractous lens should have thorough preoperative assessment including gathering history of habitual eye rubbing, so that proper preoperative counselling can be given which includes possible IOL dislocation following repeated eye rubbing.

References

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