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Eye (2006) **20**, 512–515. doi:10.1038/sj.eye.6701923;
published online 20 May 2005

Sir, **Late spontaneous anterior dislocation of an intraocular lens (IOL) with the capsular bag**

We read with interest your recent article regarding a case of right posterior dislocation of a posterior chamber intraocular lens (PCIOL) and left anterior dislocation of a PCIOL 9 and 14 years following cataract surgery.¹ We recently published a small case series about two cases where spontaneous disinsertion of the haptic of a multipiece PCIOL occurred with anterior dislocation of the lenses.² Although our cases are different in that the lenses did not dislocate within the capsular bag, it is interesting to compare several similar points and also to highlight several features not mentioned in this paper.

Looking at Figure 1 of your article, it seems that severe capsular bag contracture has occurred in the left eye of this patient. This may be related to weak zonules, but what is evident is the severe distortion of the superior haptic such that it overlaps a large part of the PCIOL optic, thus shortening its longitudinal dimension. It is almost as if the lens has lost its haptic, as in our cases. In the absence of zonular support (or haptic support in our cases), why then anterior dislocation of the PCIOL instead of dislocation into the vitreous cavity? According to Coleman and Fish's model of accommodation, ciliary muscle contraction generates a pressure gradient between the aqueous and vitreous, causing anterior movement of the lens zonule diaphragm.³ Even without accommodation, transient increases in vitreous pressure from exertion or external ocular pressure may be enough to result in anterior translational movement of the optic (or PCIOL with compressed haptics) forcing the IOL with/without the capsular bag through the pupil.

We believe two factors are important in the posterior dislocation of the right PCIOL of this patient. Firstly, this was a sulcus-fixated lens, with presumably intact haptics. Since the haptic to haptic length is not shortened by capsular contracture, they would effectively prevent this lens from dislocating anteriorly. Secondly, the vitrectomized nature of this eye meant that transmission of anteriorly directed forces would not be as effective and that there was no posterior support for the PCIOL once the remaining capsule lost its zonular attachments.

We feel it is useful also to point out that the parameters suggestive of Marfan's syndrome referred to in the article actually pertain to the Ghent criteria for diagnosing this condition.⁴ Besides this, while it was mentioned that routine investigations were normal and a cardiologist had screened the patient, we were interested whether any specific tests for homocystinuria had been performed; such patients are also known to have a Marfanoid habitus and suffer from ectopia lentis.

Homocystinuria is associated with a thrombotic diathesis and relatively simple intervention can improve the patient's life expectancy. Therefore, we felt that it was important to rule out this condition, or to mention in the article if this possibility had been excluded.

May we also suggest the use of the term 'silicone oil keratopathy' instead of 'silicon keratopathy', since the word 'silicon' refers to the element in the same column of the periodic table as carbon. Silicone oil in fact refers to a heterogeneous group of compounds which are polymers with repeating [-Si-O-Si-] (siloxane) units. Most silicone oils used in ophthalmology are in fact polydimethylsiloxanes, so it is inaccurate to label the keratopathy as 'silicon keratopathy'.

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Eye (2006) **20**, 515–516. doi:10.1038/sj.eye.6701926;
published online 20 May 2005

Sir, Reply to Late spontaneous anterior dislocation of an intraocular lens (IOL) with the capsular bag

We would like to thank Por *et al* for their interest shown in our paper.¹ We do not, however, agree with their assumptions relating to the similarities between their cases and ours and the likely aetiology in our case.

Their first patient was a young girl with acute retinal necrosis (which could have affected the lens zonules)

followed by lensectomy, vitrectomy, and a sulcus fixated Intraocular lens (IOL). The IOL in this case dislocated after 3 months with disinsertion of the haptic. Their second case was again a young man with in-the-bag fixation of the IOL with a large capsulorhexis that dislocated anteriorly 12 months later with disinsertion of its haptic. They have suggested that because of the accommodative effort and lack of capsular support and fibrosis, the IOLs dislocated anteriorly.²

We feel the similarity ends with sulcus fixation in one eye and in the bag fixation in the other eye in our patient. As can be seen in Figure 1¹ the haptic, though bent, is covered by sufficient anterior capsule and good capsular-IOL attachments can be expected 14 and 9 years after cataract surgery as in our patient. Also, both PCIOLs were intact at the time of their removal. The aetiology thus favours zonular weakness rather than IOL abnormalities. As we have mentioned in the case report bilateral involvement, developmental cataracts, retinal detachment, and then IOL subluxation in our case suggest a multifactorial aetiology.

We agree that homocystinuria can present as ectopia lentis³ and was ruled out in our patient. Ectopia lentis in homocystinuria usually occurs at an early age and is preceded by progressive myopia. Most patients have at least one or more features including skeletal, vascular, and central nervous system manifestations.^{3,4} It does share some features with Marfan's syndrome, but flatter cornea, increased axial length, and cataracts are more common in Marfan's syndrome. Lens dislocation in homocystinuria results from ruptured zonules, while in Marfan's they are intact albeit abnormal. In the absence of intact zonular fibres, it would be more likely, therefore, that the IOL within the capsular bag would dislocate inferiorly due to its weight, rather than dislocate anteriorly through accommodative pressure as in our case.

As we have mentioned, the mechanism of IOL-bag luxation in our case is inconclusive and therefore we have called it a forme fruste of Marfan's syndrome, implying that not all clinical features are present and the diagnosis is not secure.

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