

SHORT COMMUNICATION

Bilateral lens subluxation associated with atopic eczema

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PURPOSE. Ectopia lentis remains a therapeutic challenge for ophthalmologists. It classically presents with a preceding history of blunt or penetrating ocular trauma, or it may be associated with other ocular disorders such as congenital glaucoma and aniridia, or concomitant hereditary systemic diseases such as Marfan syndrome and homocystinuria.

METHODS. Case report.

RESULTS. The authors describe a previously unreported mechanism of ocular trauma associated with continuous eye rubbing, resulting in bilateral recurrent subluxation of both intraocular lens and crystalline lens.

CONCLUSIONS. It is useful for the ophthalmologist to be aware of this uncommon cause of ectopia lentis, since early advice and appropriate medical or surgical intervention may prevent more severe, sight-threatening complications. (Eur J Ophthalmol 2005; 15: 409-10)

KEY WORDS. Dislocation, Eczema, Lens, Subluxation

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INTRODUCTION

Ectopia lentis remains a therapeutic challenge for ophthalmologists. It classically presents with a preceding history of blunt or penetrating ocular trauma, or it may be associated with other ocular disorders such as congenital glaucoma and aniridia, or concomitant hereditary systemic diseases such as Marfan syndrome and homocystinuria.

We present an unusual case of bilateral lens dislocation attributable to the physical trauma of rubbing the eyes, which to our knowledge has never been reported.

Case report

A 66-year-old man was referred to the ophthalmology department with a 5-month history of gradual reduction of vision in his left eye. He had undergone right cataract extraction and intraocular lens (IOL) implantation 5 years ago. Following his previous surgery, there were three occasions

of anterior subluxation of his right IOL, which recovered spontaneously with mild residual tilting into the iris. There was documented evidence of no prior lens displacement and there was no history of any ocular trauma. His medical history included severe atopic eczema with gluten hypersensitivity and well controlled asthma and hypertension. There was no family history of ectopia lentis or any ocular pathology.

Snellen visual acuity was 6/9 and 6/18 part in the right and left eye, respectively. There was evidence of prolapsing vitreous in the left anterior chamber and iridodonesis with significant instability of the left crystalline lens, which was subluxated laterally (Fig. 1). Both corneas were clear and intraocular pressures measured 19 mmHg bilaterally. There was no extraocular sign of trauma and the pupils reacted equally to light with no relative afferent pupillary defect. Dilated funduscopy revealed no abnormality. His management comprised elective admission for a left vitrectomy and lensectomy.

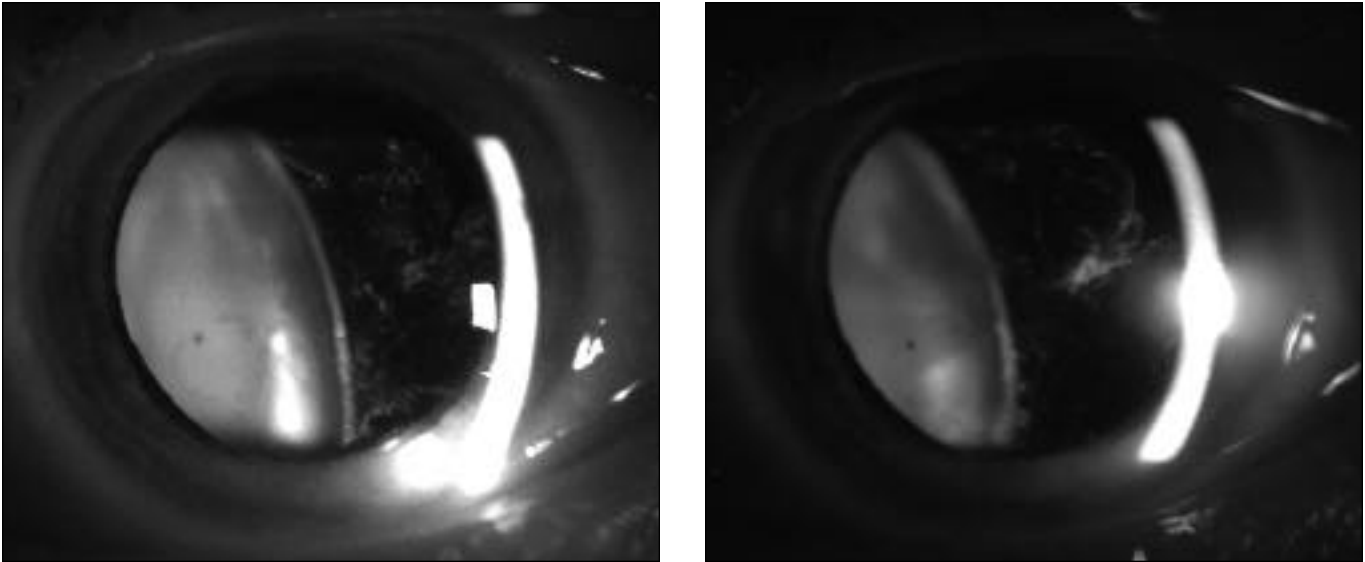


Fig. 1 - Photographs showing lateral subluxation of the left crystalline lens with prolapsing vitreous in the left anterior chamber.

Although the patient denied any history of trauma to either eye, interestingly, he was known to forcefully rub both his eyes frequently on account of itching related to his severe eczema. He denied eye poking and delivery of any forms of more powerful blunt trauma. In the absence of any other predisposing factors, his recurrent episodes of IOL and lens subluxation were attributed to his excess eye rubbing resulting in weakening of the zonules bilaterally. The patient underwent a combined left vitrectomy and lensectomy with insertion of a sulcus-sutured lens implant.

DISCUSSION

Ectopia lentis is a rare condition, most commonly caused by ocular trauma, which accounts for nearly 50% of all lens subluxation-dislocation cases (1). Symptoms vary with the degree of lens displacement and the underlying etiologic abnormality. Minimal subluxation of the lens may cause no visual symptoms, but in more advanced cases serious optical disturbances arise, including extreme hyperopic or myopic shift, astigmatism, or acquired aphakia. In younger patients the most important complication is the potential development of amblyopia. Occasionally, the vision fluctuates dramatically as the patient may alternate between phakic and aphakic vision. Monocular diplopia may also manifest with evidence of iridodonesis and phacodonesis due to loss of zonular support (2).

Disruption or dysfunction of the zonular fibers of the lens, regardless of cause (trauma or heritable condition), is the underlying pathophysiology of ectopia lentis. The degree of zonular impairment determines the degree of lens displacement. Trauma accounts for a large percentage of all acquired lens subluxations, with mechanical stretching of the zonules. This occurs as the eye is compressed in an anterior-posterior direction, such as with impact by a fist or ball. The subsequent distention of the globe in the medial-lateral plane ruptures the zonular fibers (3).

Treatment of a lens dislodged into the anterior chamber is initially pharmacologic with mydriatics/cycloplegics (to permit posterior migration of the lens behind the iris). Surgical treatment will then be needed to prevent further complications, particularly if there is co-existing lens-induced uveitis or glaucoma (4).

Treatment of a dislocated lens in the vitreous is surgical; however, many vitreoretinal surgeons may advocate observation if no visual disturbance or impending retinal complication is apparent. Fitting a patient with a hard contact lens is acceptable treatment in an asymptomatic uncomplicated dislocation. However, most patients will require a pars plana vitrectomy/lensectomy procedure with an intraocular lens implanted in the anterior or posterior chamber, with or without sulcus/suture fixation, depending on the degree of remaining capsular and zonular support (5, 6).

Our case illustrates a previously unreported mechanism

of ocular trauma associated with continuous eye rubbing, resulting in bilateral recurrent subluxation of both IOL and crystalline lens. It is useful for the ophthalmologist to be aware of this uncommon cause of ectopia lentis, since early advice and appropriate medical or surgical intervention may prevent more severe, sight-threatening complications. Reprint requests to:

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