



Capsular bag phimosis

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ABSTRACT

A 60year old male presented with insidious onset, gradually progressive, painless diminution of vision in the right eye since a year. He was operated for cataract about 7 years ago. However, details of surgery or intraocular lens (IOL) were unavailable. Fellow eye was unremarkable. Examination revealed a visual acuity of FC at 5 mts. Slit-lamp examination revealed a quiet anterior chamber without any cells-flare nor any posterior synechiae. Co-axial retro-illumination revealed an in-the-bag IOL, having both haptics folded on the optic with scarring and contraction of the capsular bag, most apparent in the centre. Fundus examination with indirect ophthalmoscopy was difficult owing to the media haze due to capsular scarring but retina was unremarkable as far as could be seen. A diagnosis of “Capsular Bag Phimosis”^{1,2,3,4} was made. An ASOCT demonstrated such severe moulding of the IOL that a simple YAG capsulotomy may have increased visual acuity but would have lead to severe image distortion, metamorphopsia and resultant aniseikonia. IOL was explanted alongwith the phimosed capsular bag and a Scleral-fixated IOL was placed to achieve a final BCVA 20/20P Snellen.

1. Case report

A 60year old male presented with insidious onset, gradually progressive, painless diminution of vision in the right eye since a year. He was operated for cataract about 7 years ago. However, details of surgery or intraocular lens (IOL) were unavailable. Fellow eye was unremarkable. Examination revealed a visual acuity of FC at 5 mts. Slit-lamp examination revealed a quiet anterior chamber without any cells-flare nor any posterior synechiae. Co-axial retro-illumination revealed an in-the-bag IOL, having both haptics folded on the optic with scarring and contraction of the capsular bag, most apparent in the centre. Fundus examination with indirect ophthalmoscopy was difficult owing to the media haze due to capsular scarring but retina was unremarkable as far as could be seen. (See Fig. 1) A diagnosis of “Capsular Bag Phimosis”^{1–4} was made. An ASOCT demonstrated such severe moulding of the IOL that a simple YAG capsulotomy may have increased visual acuity but would have lead to severe image distortion, metamorphopsia and resultant aniseikonia. IOL was explanted alongwith the phimosed capsular bag and a Scleral-fixated IOL was placed to achieve a final BCVA 20/20P Snellen.

2. Discussion

“Capsular Bag Phimosis” or “Capsular Contraction Syndrome” (CCS) is not an uncommon entity. Al-Kharashi et al.⁵ Wong et al.⁶ and Naraware et al.⁷ have reported similar cases in literature but the slit-lamp examination images reported by them demonstrated anterior capsular phimosis resulting from scarring and contraction of the capsulorhexis diameter; hence it was interesting to note that almost the entire capsulorhexis margin did not show any such signs in our case despite severe posterior capsular contraction.

CCS is strongly associated with several ocular and systemic factors which either increase inflammatory component in the anterior chamber or lead to instability of the blood-aqueous barrier like pseudoexfoliation, uveitis, myotonic dystrophy, retinitis pigmentosa, diabetic retinopathy, high myopia, and Marfan’s syndrome. Intra-operatively, excessive manipulation leading to zonular dehiscence and resultant capsular-tension ring (CTR) insertion might maintain the integrity and shape of the capsular bag and protect against the development of CCS. Surgical risk factors such as small capsulorhexis size and insufficient aspiration of residual lens epithelial cells as well as IOL design and material play important role in the pathogenesis of CCS.

The treatment of anterior capsule phimosis depends on the degree and progression of the contraction. In less severe cases, Nd:YAG laser

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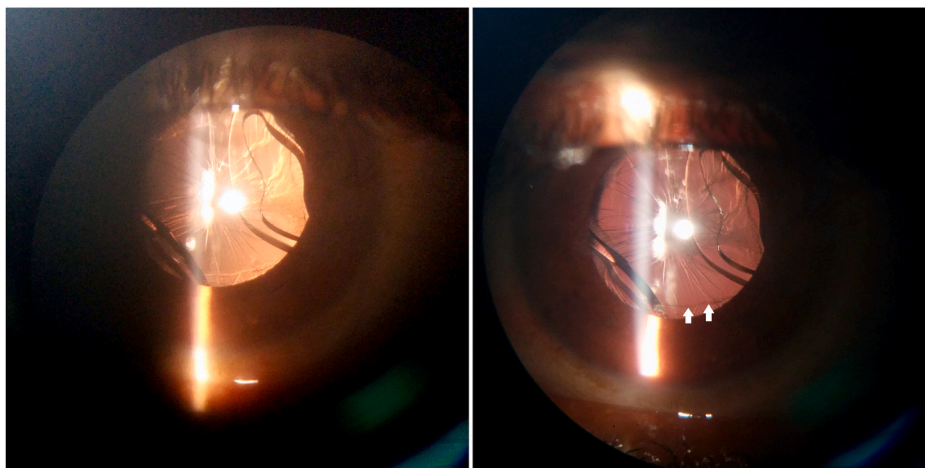


Fig. 1. Slit-lamp retroillumination photograph depicting capsular bag phimosia. The entire capsular rim is can almost be traced in entirety (shown with arrows).

anterior capsulotomy provides one of the simplest unobtrusive mode of management. Nd-YAG capsulotomy aimed radially at the level of the anterior capsule to disrupt the centripetal contraction forces may obviate the need for surgery. In cases when this fails or may not be possible, the fibrotic membrane may need to be excised either by a vitrector or micro-scissors. Depending of the stability of the IOL and the integrity of the remnant capsular bag, the surgeon would have to take a call of haptic repositioning as against IOL explantation and alternative refractive correction including a scleral-fixated or iris-claw IOL.

3. Conclusion

Capsular bag phimosia is a rare late-complication post-cataract-surgery and can be easily managed with Nd-YAG capsulotomy or micro-excision with or without IOL explantation.

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Declaration of competing interest

None.

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