Lens Options in a Difficult Case

Two surgeons outline how they would treat a patient with a long history of ectopia lentis.

BY MICHAEL AMON, MD; AND A. JOHN KANELLOPOULOS, MD

Patient D is a 20-year-old man with a long history of ectopia lentis and spherophakia. His congenital spherophakia was originally diagnosed in childhood as myopia, but the discrepancy between his axial length and the degree of myopia in evaluation a few years ago suggested spherophakia in both eyes. He later developed ectopia lentis in both eyes, with superonasal lens subluxation (Figure 1). Prior to surgery to remove his subluxated lenses, the patient wore -12.00 D contact lenses with a BCVA of 20/70 in both eyes. He underwent anterior lensectomy and vitrectomy with a bimanual technique, and surgical iridectomies were created at the 1-o’clock position in each eye. What IOL solution would you recommend for this patient?

– Case and all images submitted by A. John Kanellopoulos, MD

MICHAEL AMON, MD

There are many IOL options in this case. Because Patient D is only 20 years old, an anterior chamber angle-supported IOL is contraindicated because of the risk of progressive endothelial cell loss. If the iris has a normal anatomic structure and if there is no iridodonesis, then an iris-fixated anterior chamber IOL is a good option depending on the anterior chamber depth. One point to mention is that, cosmetically, an anterior chamber IOL is visible in some situations.

In principle, I would prefer to implant an IOL in the posterior chamber, as this is the physiologic position of the crystalline lens. A retropupillary sutured IOL is an option, but, again, the patient is young, and suture ero-

A. JOHN KANELLOPOULOS, MD

The options for an IOL in this case include an angle-supported anterior chamber IOL, an iris-fixated anterior chamber IOL, a retropupillary sutured posterior chamber IOL, and a scleral tunnel-fixated or glued posterior chamber IOL.

Figure 1. Patient D developed ectopia lentis with superonasal subluxation of the crystalline lens in his left eye.
Patient D was treated at my clinic. In this case, I used the same technique that I have preferred for the past 10 years, which is an Artisan Aphakia IOL (Ophtec BV) with retropupillary iris fixation (Figures 2 through 5). The whitish material visualized behind the iris in these intraoperative pictures is triamcinolone acetonide. Triamcinolone is used to prevent cystoid macular edema and to visualize the vitreous, which can possibly become entangled in the IOL and/or the anterior chamber. The IOL calculation included adjustment for the posterior placement of the IOL. One month after surgery, Patient D’s UCVA was 20/25, BCVA was 20/20, and refraction was +0.50 -0.75 X 170°.

Michael Amon, MD, is Professor and Head of the Department of Ophthalmology, Academic Teaching Hospital of St. John, Vienna, Austria. Dr. Amon states that he is a paid consultant to Rayner Intraocular Lenses Ltd. He is a member of the CRST Europe Editorial Board. He may be reached at tel: +43 1 211 21 1140; e-mail: amon@augenchirurg.com.

A. John Kanellopoulos, MD, is the Medical Director of Laservision Eye Institute, Athens, Greece, and a Clinical Professor of Ophthalmology at New York University Medical School. He is an Associate Chief Medical Editor of CRST Europe. Dr. Kanellopoulos states that he has no financial interest in the material presented in this article. He may be reached at tel: +30 21 07 27 27 77; e-mail: ajkmd@mac.com.