

TECHNIQUES FOR REPAIRING DISLOCATED IOL



Sunset is my favorite color.

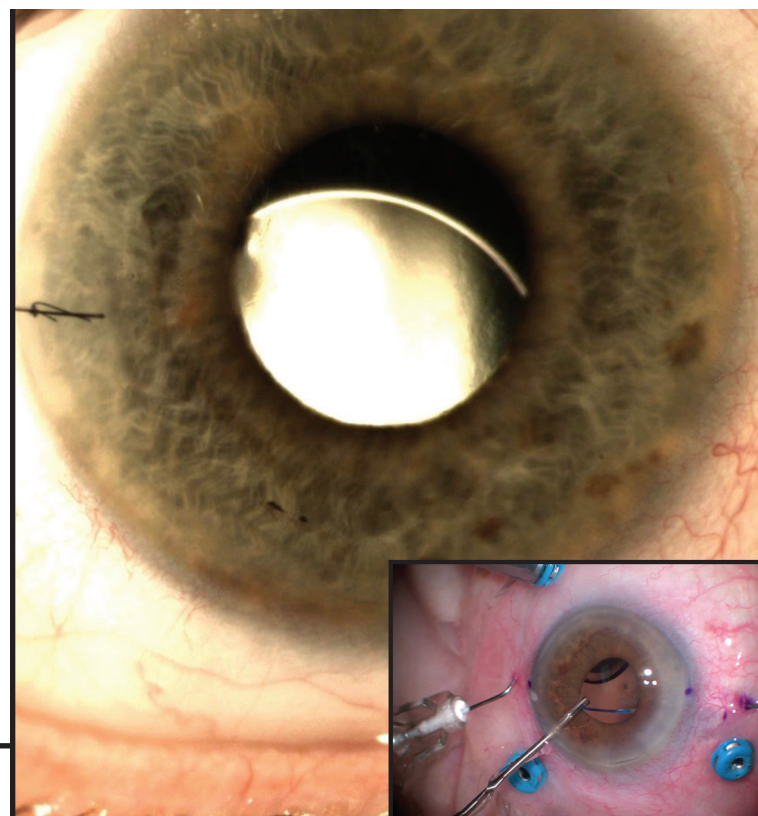
BY JACOB LANG, OD, FFAO

The invention and evolution of the IOL may be one of the greatest accomplishments in medical device technology in our lifetimes. The World Health Organization estimated the number of cataract surgeries performed in 2010 to be 20 million, and that number was expected to reach 32 million by last year.¹ Obviously, this device has become commonplace in eye care, but as with anything, there are some instances when an IOL will have to be modified, replaced, or repaired.

IOL dislocation (Figure) isn't common, but several risk factors can help predict if and when "the sun will set." Pseudoexfoliation is probably the strongest risk factor for IOL dislocation.² Pseudoexfoliation can lead to zonular complications intraoperatively. It can also lead to progressive anterior capsulorhexis contraction, which can in turn dislocate the IOL-bag complex.² Other risk factors for IOL dislocation include trauma, high myopia, multiple intraocular surgeries, capsulotomy, uveitis, Marfan syndrome, and retinitis pigmentosa.²

Methods for IOL repositioning and repair have evolved as surgeons seek the simplest, safest, and most efficient way to restore vision for these patients. Surgical options include replacing the posterior chamber lens with an anterior chamber IOL, suturing the dislocated lens to the iris, or securing it to the sclera with either sutures or glue.²⁻⁴ Each of these methods has its own complications, such as endothelial compromise, suture erosion, and breakage of the adhesive or the suture.⁴

My impression is that the current favorite procedure among surgeons appears to be the Yamane technique (Inset).³ In this procedure, the surgeon uses



Inset. Insertion of three-piece haptic into 30-gauge needle.

Photo courtesy of Jesse Viskisel, MD

a transconjunctival approach with two 30-gauge thin-walled needles. The haptics of a three-piece IOL are inserted into the needles and externalized. The haptic tips are then cauterized (melted) to make a flange or bulge at the end of the haptics. Finally, the flange is pushed back and fixed into the sclera. The flange prevents the haptics of the IOL from falling back into the globe. This procedure has been shown to provide good IOL positioning with firm haptic fixation and without the need for sutures or glue.³

Although it's unlikely that optometrists will be performing the Yamane technique any time soon, hopefully this update will spur you to have conversations about these procedures with your surgical colleagues. Identifying the most up-to-date surgeons can help you to facilitate the best referrals and, most important, to provide the best care for your deserving patients. ■

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