Hansatome Excursion in Narrow Palpebral Aperatures Without Lid Speculum

To the Editor:

We read with interest the study by Kato and colleagues (Kato AK, Toda I, Hori-Komai I, Takano Y, Tsuebota, K. Risk factors for insufficient fixation of microkeratome during laser in situ keratomileusis. J Refract Surg 2002;18:47-50) on the risk factors for insufficient fixation of microkeratome during Laser in situ Keratomileusis (LASIK). We would like to share our technique of creating a flap with the Hansatome (Bausch & Lomb, Claremont, CA) in Indian eyes, which like Japanese and Asian eyes, have small palpebral apertures.

We use two suction rings, ie, 8.5 mm and 9.5 mm, depending on the corneal diameters and the type of the refractive error to be corrected. Using the Hansatome, we encountered problems in fixating the suction ring in eight eyes (four patients) after the insertion of the speculum. In the first two patients, the suction ring could not be positioned on the eye, as enough space was not available since the fornices were small. Lateral canthotomy was performed in these eyes in order to accomplish a smooth excursion of the Hansatome. However, in the last four eyes, we did not perform a lateral canthotomy but instead removed the lid speculum and placed the 8.5-mm suction ring after opening the eyes with the index finger and the thumb. The Hansatome, with a 180-mm thickness plate, was then placed on the suction ring and the LASIK flaps were created. No untoward event was noted in any of the eyes.

The presence of the lid speculum decreases the potential space in the fornices, especially in eyes with narrow palpebral apertures. This technique of use of the microkeratome without the lid speculum is especially useful in eyes with inadequate exposure due to narrow palpebral apertures. A lateral canthotomy is avoided.

However, the use of the Hansatome without the speculum requires caution and should be only undertaken by experienced surgeons. Although no complications were encountered in our cases, the drapes, the lashes, and the eyelids should be spread wide apart either by the surgeon or an assistant to prevent inadvertent entanglement of these structures during the excursion of the Hansatome.

Rasik B. Vajpayee, MBBS, MS
Namrata Sharma, MD
New Delhi, India

Cataract Following Posterior Chamber Phakic Intraocular Lens

To the Editor:

Laser in situ keratomileusis (LASIK) is a popular procedure for the correction of low to moderate myopia (-0.50 to -10.00 D). However, surgical correction of high myopia is a difficult and controversial issue, and no completely satisfactory technique exists at present.

The implantation of an intraocular lens (IOL) in phakic patients has been shown to be an effective and predictable procedure for the correction of high myopia. It has other important advantages: reversibility, immediate correction, stability, and relative simplicity. The invasive character of the technique and factors related to its long-term safety have raised controversies and limited its application. The morphologic characteristics and composition of the phakic lenses have shown tremendous evolution since the Baikoff angle-supported lenses and the Fyodorov phakic posterior chamber IOLs, incorporating new materials such as collagen to increase hydrophilia and biocompatibility. In 1993, researchers began to work on a new model of lens made of Collamer, a copolymer of hydroxyethyl-methyl-acrylate and porcine collagen—the Implantable Contact Lens, developed by Staar Surgical AG (Nidaù, Switzerland). Until July 1995, six generations of this contact lens were developed.

We report a patient who developed bilateral cataract 3 months following the implantation of posterior chamber phakic intraocular lens for the correction of high myopia in both eyes.

CASE REPORT

A 62-year-old male patient presented to The Eye Center, Riyadh, Saudi Arabia, complaining of decrease in vision following implantation of a phakic posterior chamber intraocular lens for the correction of myopia (ICM xxxV2, Implantable Contact Lens, Staar Surgical AG) for correction of his high myopia in Jeddah, Saudi Arabia. The patient reported 20/20 vision after the procedure. On examination, the best spectacle-corrected visual acuity was 20/200 in the right eye and 20/200 in the left eye. The patient had marked reduction of contrast sensitivity in both eyes (3/25). His intraocular pressure by application was 10 mmHg in each eye.

Slit-lamp microscopy revealed clear corneas. The anterior chambers were slightly shallow with peripheral iridectomy in each eye. The presence of
the posterior chamber IOL was noted in each eye. The lens in each eye showed anterior capsular thickening with anterior subcapsular cataract. Fundus examination showed myopic changes with temporal crescent, posterior vitreous detachment, and peripheral retinal degeneration with no tears or holes.

The patient underwent removal of the phakic posterior chamber IOL with phacoemulsification and posterior chamber IOL implantation. His postoperative course was uneventful, and his best spectacle-corrected visual acuity improved to 20/30 in both eyes. The contrast sensitivity improved to 18/25 and 20/25 in both eyes, respectively. The phakic IOL and the anterior capsule were sent for pathology.

Microscopic examination of hematoxylin and eosin stained sections showed thickening of the anterior capsule with a single layer of cuboidal cells and a focal area of subepithelial eosinophilic thickening representing cortical material.

**DISCUSSION**

The crystalline lens damage and the formation of cataracts following implantation of some styles of phakic posterior chamber IOLs is a serious complication of this procedure. The decrease of crystalline lens transmittance after implantation of an posterior chamber IOL can be related to surgical trauma, subclinical inflammation, or to the continuous or intermittent contact between the lens and the crystalline lens. One or more of the previously mentioned mechanisms were probably involved in cataract formation in our patient. This case illustrates the fact that a posterior chamber phakic IOL may lead to cataract and loss of vision.

Earlier posterior chamber models, such as the Star V2 reported here, had a higher incidence of cataract formation. More recent models have a lower incidence. Long-term results are needed to judge the safety of the procedure.

(The authors acknowledge the Administrator of The Eye Center and The Eye Foundation for Research in Ophthalmology, Mrs. Najwa Tabbara, the help of the LASIK Nursing Staff, and the secretarial assistance of Ms. Vangie Ontoria.)

**REFERENCES**


Hisham F. El-Sheikh, MD
Khalid F. Tabbara, MD
Riyadh, Saudi Arabia