

ASCRS EyeWorld Meeting Reporter

Reporting Live from 2008 ASCRS-ASOA Symposium & Congress

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Today's news from the 2008 ASCRS annual meeting brought to you by EyeWorld magazine.

Monday's sessions at the 2008 ASCRS-ASOA annual symposium continued to enrich, enlighten, and challenge attendees. Among the more popular topics, physicians attended presbyopia pearls, challenges of refractive surgery, as well as decentered and dislocated multifocal IOLs. This afternoon's Clinical Carryout session and tomorrow's Best for Last session promise to be 'don't miss' events. See you at next year's meeting in San Francisco, April 3-8, 2009!

New data supports new technology in presbyopia treatment

The presentations made during Monday afternoon's discussion on presbyopia-correcting intraocular lenses (IOLs) provided further proof how much ophthalmologists are involved in the early pioneering work of this field, said **D. Michael Colvard, M.D.**, assistant clinical professor, University of Southern California, Los Angeles.

One example that supports Dr. Colvard's statement is the work being done by **Stephen A. Updegraff, M.D.**, St. Petersburg, Fla., and his colleagues. Dr. Updegraff presented a retrospective review of eight patients who received a total of 10 piggyback IOLs of which five were multifocal and five were spherical. Dr. Updegraff said all multifocal piggybacks resulted in improved range of vision. Piggyback IOLs provide excellent refractive outcomes for either reducing hyperopia or providing multifocality for spherical pseudophakes.

There will be a growing need for more piggyback technology choices as the number of refractive lens implantation increases as patients develop lenticular changes. For many of these patients, an intraocular approach is more stable and avoids possible ocular surface issues encountered with corneal refractive procedures, Dr. Updegraff said.

Another example of pioneering work can be seen in the work of **J.E. "Jay" McDonald II, M.D.**, Fayetteville, Ark. Dr. McDonald presented results from a new method he is developing for quantifying ocular dominance to determine whether patients are good candidates for the correction of presbyopia correction with monovision.

Dr. McDonald said the degree of ocular dominance and the ability of the patient to produce bilateral fusion of images at the cortical level are critical to success in using monovision to achieve continuous vision as a treatment for presbyopia. The new methodology uses electronic shuttered goggles to assess the patients' neuro cognitive visual cortex integration.

At three months post-op, about 20% of 42 patients used spectacle for near vision. All patients were 20/30 or better at distance, and 73% were 20/20 or better. Near visual acuity was J2 or better for 88%, and J1 or better for 48% of patients.

Robert P. Lehmann, M.D., clinical associate professor of ophthalmology, Baylor College of Medicine, Houston, said interim visual results in binocular testing of subjects bilaterally implanted with ReSTOR or ReSTOR Aspheric IOLs (Alcon, Fort Worth, Texas) indicate the aspheric IOL may provide advantages.

Dr. Lehmann compared the two IOLs in a prospective comparative study of nine bilateral ReSTOR subjects and 11 bilateral ReSTOR Aspheric subjects.

The mean uncorrected distance logMAR visual acuity for the ReSTOR group was 0.07 compared to -0.03 for the ReSTOR Aspheric group. Mean uncorrected near logMAR visual acuity at best distance is 0.11 for the ReSTOR group and -0.05 for the ReSTOR Aspheric group, he said.

Ricardo Alarcon, M.D., Department of Ophthalmology at Servioftalmos, Bogotá, Colombia, provided an update on the long-term data for patients implanted bilaterally with



the Synchrony Dual optic IOL (Visiogen, Irvine, Calif.). In his prospective, non-comparative series of cases of 42 patients (84 eyes) the mean uncorrected visual acuity (UCVA) at one for distance was 0.02 logMAR, -0.10 logMAR for intermediate vision and 0.10 logMAR for near, Dr. Alarcon said. After two years, the mean UCVA remained stable: 0.03 logMAR for distance vision, -0.10 logMAR for intermediate vision and 0.06 logMAR for near vision. Also after two years, more than 90% of patients can read 0.3 logMAR (20/40 Snellen), Dr. Alarcon said. This study demonstrates that Synchrony can provide adequate and stable functional vision at all distances without inducing halos or glare, he said.

Editors' note: Dr. Alarcon has a financial interest with Visiogen (Irvine, Calif.). Dr. Lehmann has a financial interest with Alcon (Fort Worth, Texas). Dr. McDonald has a financial interest in the technology he is developing. Dr. Updegraff does not have any financial interests.

Experts discuss the challenges facing refractive surgery today

The afternoon symposium, *Refractive Surgery—Champions and Challenges*, proved informative to attendees as experts discussed topics like, dealing with the presbyopic patient and refractive surgery complications and complaints. The session was moderated by **Michael C. Knorz, M.D.**, Germany, and **Helen K. Wu, M.D.**, director of refractive surgery, New England Eye Center, New England Medical Center, Boston.

John A. Vukich, M.D., professor, University of Wisconsin- Madison School of Medicine and Public Health, discussed the use of intracorneal implants for presbyopic patients. He said there are currently two versions of presbyopic corneal inlays: the 1.5 mm in diameter PresbyLens (ReVision Optics, Lake Forest, Calif.) and the AcuFocus/Bausch & Lomb ACI 7000 corneal inlay (Rochester, N.Y.), which is 3.8 mm in diameter, that are in trials in the U.S. The results to date, he said, are encouraging and described potential uses in the future such as in LASIK patients as an adjunct or enhancement.

Also during the session, attendees were polled on how often they mix and match IOLs, if at all and a vast majority of the attendees said they either never mix and match or only do it occasionally. Most of the surgeons in the room also said they believed truly accommodating IOLs are the future in intraocular lens implants.

Editors' note: Dr. Vukich does not have any financial interests.

Decentered multifocal IOLs very problematic

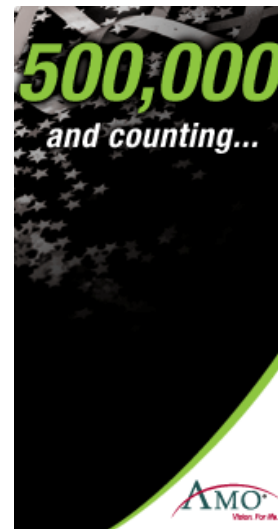
Decentered monofocal IOLs change very little in terms of image quality, said Pablo Artal, Ph.D., Laboratorio de Optica, Universidad de Murcia, Spain. But if you decenter a multifocal IOL by 0.5 mm, "the situation is really terrible," Dr. Artal said. That's because the patient will likely complain of diplopia. "Centration is extremely important," for such cases, he said. Can neural adaptation help with optical problems? "We do not know yet what happens with adaptation to scatter and other irregular artifacts in the retinal image," Dr. Artal said. "I don't think you should rely on posterior neural adaptation to try to avoid ocular problems."

Editors' note: Dr. Artal has no financial interests related to his presentation.

What causes PCIOL dislocation?

Nick Mamalis, M.D., John A. Moran Eye Center, Salt Lake City, Utah, has investigated potential issues leading to PCIOL dislocation. In an analysis of 84 cases, 42 were associated with pseudoexfoliation. Fifteen had retinal detachment or previous vitrectomy. Trauma was uncommon (4 cases). Silicone IOLs (34), PMMA lenses (28), and acrylic ones (22) were all involved in dislocation. So were one piece lenses and three piece lenses. Of note, the mean time from surgery to dislocation was 9.2 years so onset is clearly delayed. "What can we do to prevent this?" Dr. Mamalis said. "Minimize stress at the time of surgery." He also said placement of a CTR could help, but the jury is still out on that one. It also is unknown if IOL placement in the sulcus subjects patients to higher risk.

Editors' note: Dr. Mamalis has no financial interests related to his presentation



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