

Supplement to EyeWorld Asia-Pacific Winter 2019

Alcon Surgical Video Symposium

At the 2018 APACRS Annual Meeting, chairs **Pannet Pangputhipong, MD**, Bangkok, Thailand, **Graham Barrett, MD**, Perth, Australia, and **Ronald Yeoh, MD**, Singapore, as well as **Cesar Espiritu, MD**, Manila, Philippines, led a video symposium sponsored by Alcon (Fort Worth, Texas). Speakers on the program included **Dandapani Ramamurthy, MD**, Coimbatore, India, **Michael Lawless, MD**, Sydney, Australia, **David Lubeck, MD**, Homewood, Illinois, and **Pichit Nariphthaphan, MD**, Bangkok, Thailand.

Dr. Nariphthaphan presented "Efficiency and Efficacy," discussing elegance in dense nucleus removal. Showing a surgical video, he offered tips on how to maintain the chamber after implantation of a premium lens. Dr. Nariphthaphan suggested using a wet sponge to help maintain the anterior chamber when taking out I/A. In a premium lens, if the chamber collapses, the lens will pop out and the axis will rotate. At the end of the surgery, he always puts OVD on the surface to protect the surface. When you take out the speculum, be very gentle, he added.

His take home-messages included a variety of tips: the LenSx laser (Alcon) can make your life easier; Centurion (Alcon) with balanced tip is superb for hard nucleus; and stromal hydration before OVD removal can help better maintain the chamber.

Dr. Ramamurthy shared several challenging cases and how he handled them. He discussed a hard, brown nuclear cataract, a soft cataract, and a post-traumatic subluxated cataract.

During his case presentation, Dr. Ramamurthy noted the value of using the LenSx laser platform. You can tailor-make the rhexis exactly where you want it with this technology, he said. Particularly in post-traumatic subluxated cataract cases, there is no countertraction, so it may be challenging to make the rhexis manually. "The greatest advantage of the LenSx is the ability to make the rhexis exactly where you want," he said. So you have a well-centered lens and well-centered rhexis at the end of the surgery.

Dr. Ramamurthy added that earlier there was some controversy about the strength of the rhexis created with femto platforms. But now because of the lower energy levels and more precise focusing of the laser beam, there is significant evidence that these rhexis are equally strong, he said.



Michael Lawless, MD

Meanwhile, Dr. Lubeck shared information on achieving greater accuracy in less predictable eyes, showing a case presentation. He noted many advantages of the technology he used.

With VERION (Alcon), the capsulorhexis and lens ablation can be centered on the visual axis, he said. Dr. Lubeck performed phacoemulsification at an IOP of 28, and he said he "wouldn't have been able to conceive of doing this before Centurion." Dr. Lubeck detailed how he utilizes the

ORA intraoperative aberrometry system (Alcon) and the "rich amount of data" it provides.

Lastly, Dr. Lawless shared some choices of advanced technologies to optimize patient outcomes. Dr. Lawless said that in his practice, the LenSx laser is fundamental in terms of accuracy and safety of the capsulotomy. He added that using the Centurion system makes him comfortable because it can provide great chamber stability and safety. He thinks femto-second laser surgery is incrementally

better than what he can do manually and that the Centurion system is the key to safe, controlled surgery.

Dr. Lawless highlighted the benefit of using the VERION system, particularly in toric cases, which are the majority of lenses that he implants.

Once you have optimized the tear film and cut through the "noise," the accuracy of good formulae is apparent, digital alignment makes sense, and small toric IOLs are meaningful.

Dr. Lawless noted that he's not a better surgeon than he was 5 years ago, but he's getting better accuracy than he was 5 years ago, to the level that patients expect.

He also briefly mentioned the Clareon lens (Alcon) with its injector, which he said is the best injector he's used in terms of protecting the IOL and the wound.

Dr. Lawless concluded by summarizing his seven essentials for happiness:

1. Safe surgery: Centurion chamber stability
2. Safety and accuracy – LenSx
3. A realistic conversation prior to surgery
4. Tear film optimization
5. Biometry with correct formulae
6. Toric IOLs in 90% of patients, which requires VERION and digital alignment
7. PanOptix trifocals in 25% of patients



Michael Lawless, MD, Pichit Nariphthaphan, MD, David Lubeck, MD, Graham Barrett, MD, Ronald Yeoh, MD, Dandapani Ramamurthy, MD, Pannet Pangputhipong, MD, and Cesar Espiritu, MD

Innovations for Precision in Cataract Refractive Surgery

A symposium at the 2018 APACRS Annual Meeting sponsored by Alcon covered a variety of topics in cataract refractive surgery.

The session was moderated by **Michael Lawless, MD**, Sydney, Australia.

Rohit Shetty, MD, Bangalore, India, presented on “Taking the Leap in Laser Vision Correction with Contoura Vision.” He discussed the evolution of looking at the cornea. In the early 1990s, it was all about myopia/hyperopia. Anywhere close to emmetropia was considered a success, but then physicians started looking at being within ± 0.5 D. This is when the development of different profiles, blend zones, and laser energies were factored in. “But still, the quality of vision was always an enigma,” he said. Dr. Shetty said we’re currently in an era of customization of LASIK. To achieve this, we have to achieve true customization.

He discussed customized ablation profiles and regularizing the corneal surface. Dr. Shetty said he knew wave-front-optimized is good, but he was keen on the quality with Contoura.

Dr. Shetty said it’s important to look beyond the corneal aspects of quality of vision because you need to understand that the lens mirrors the cornea. Whatever happens on the cornea before or after surgery shows up on the lens. He noted that coma is important to identify because the lens will not accommodate the same way in these instances because it has to balance what’s happening in the corneal plane internally.

What’s important is making the cornea regular in one step, but you also have to keep the refractive error from becoming myopic.

Nowadays, Dr. Shetty said patients want good quality of vision, quality of life, safety and predictability, and less complications, and using technology like Contoura can aid in this.

David Lubeck, MD, Homewood, Illinois, presented “Thinking Differently About Cataract Surgery to Optimize Patient Outcomes.” He covered next generation phacoemulsification with Centurion and Active Fluidics and intraoperative aberrometry with ORA.

He shared some of the aspects that he finds valuable with Centurion and Active Fluidics. With gravity-based fluidics, all parameter adjustments were made to mitigate surge

(required high bottle height, limited AFR/vacuum, more limited working space, more fluid use, more turbulence, and more attention to AC and capsular depth).

However, Active Fluidics automatically and instantaneously compensates to prevent surge, allowing redefinition of procedure goals, Dr. Lubeck said. You can operate at near physiologic IOP, reduce balanced salt solution use to less than 50 mL per procedure, reduce procedure time, reduce turbulence to maintain the pupil and protect the endothelium, simplify removal of soft and very dense cataracts, and successfully and efficiently manage complications.

“Having this technology has allowed me to go back and reconsider fluidics from a different perspective,” he said.

Dr. Lubeck noted that with Centurion and Active Fluidics, physicians can safely operate at a lower IOP. The system provides the capability to perform physiologic IOP phaco and allows physicians to achieve their procedure goals comfortably. An adjustable parameter compensates for fluid egress through different sized incisions.

He shared that one of his favorite features is the IOP ramp, which varies the speed at which the pressure in the eye rises up to the preset IOP.

Dr. Lubeck moved on to discuss ORA, which he said offers improved clinical results, especially in spherical and toric IOL placement following refractive surgery and with femtosecond laser-assisted cataract surgery. In his practice, Dr. Lubeck has found improved clinical results with ORA in many clinical situations. Preoperative data can be entered remotely or in the operating room. ORA’s algorithms are regularly optimized for clinical sites individually and across global databases through entered pre- and postoperative data. Dr. Lubeck thinks that the existence of a large global database will further improve accuracy of cataract surgery outcomes.

Soon Phaik Chee, MD, Singapore, presented “Clinical Experience with PanOptix and PanOptix Toric Trifocal IOLs.” She first discussed the unique approach by Alcon with the trifocal and the quadrifocal diffractive platform. The PanOptix has 15 rings. It transmits 88% of light at 3 mm pupil size to the retina and allocates half of the light to distance and splits the rest evenly between near and intermediate. It is a non-apodized diffractive multifocal, which sends energy to



Rohit Shetty, MD



Chee Soon Phaik, MD, and David Lubeck, MD



David Lubeck, MD

three focal points in small and large pupil conditions.

She detailed studies with the PanOptix and PanOptix toric lenses from the Singapore National Eye Centre (SNEC).

The first PanOptix study, conducted from October 2015 to June 2017, featured 50 eyes of 29 patients (21 bilateral implants and eight unilateral implants) with 1-month follow-up and 6-month follow-up. The second PanOptix toric study was conducted from April 2017 to March 2018 on 57 eyes of 33 patients (24

bilateral and nine unilateral) with 1-month follow-up.

The study found that the PanOptix/PanOptix toric in the SNEC experience delivers excellent range of vision from 35 cm through to distance unaided, Dr. Chee said. Refractive predictability is very good (90% within ± 0.5 D); binocular photopic contrast sensitivity is normal at 1.5, 3, 6, 12, and 18 cycles/degree; and glare is mild and halos are moderate.