Abbott Medical Optics Launches Phaco System, Preloaded Delivery System

Abbott Medical Optics announced the launch of the Compact Intuitiv Phacoemulsification System and the Tecnis iTec Preloaded Delivery System at the American Society of Cataract and Refractive Surgery (ASCRS) Annual Meeting in San Diego.

The Compact Intuitiv phaco system features advanced fluidics and multidirectional ultrasound and is engineered to deliver chamber stability, minimal clogging, and dependability, according to a company news release. The system includes real-time chamber stability technology designed to maintain IOP and provide excellent control. Other features include small-bore, flexible tubing for control and chamber stability, predictable gravity-fed infusion, and automatic occlusion sensing.

The device’s Advanced Linear footpedal enhances ease of use, responsiveness, and control, while its portable, durable design enables increased mobility. A high-speed vitreous cutter facilitates cutting efficiency, and an auto-loading tube pack and one-step prime and tune enable easy setup, the news release said.

The Tecnis iTec Preloaded Delivery System allows surgeons to insert the Tecnis 1-Piece IOL (Abbott Medical Optics) into the eye without having to touch or load the lens, minimizing the risk of infection associated with contamination, the company said.

Beaver Visitec International Launches I-Ring Pupil Expander

Beaver Visitec International announced the launch of the Visitec I-Ring Pupil Expander at the ASCRS Annual Meeting.

The Visitec I-Ring Pupil Expander is a single-use iris-retraction device for intraoperative small pupil management. It is designed to safely expand the iris to increase the surgeon’s field of view and improve access to the lens while protecting the iris, according to a company news release.

The I-Ring is made of soft, resilient polyurethane material that is gentle on intraocular tissue. Insertion, engagement, and removal are performed single-handedly. The fixed channel height prevents pinching of the iris during the insertion and removal steps, and safe positioning holes further protect the iris from potential damage. The I-Ring’s complete 360° engagement with the iris provides consistent pupil expansion without distortion. The uniform field of view is 6.3 mm, with an aperture shape that helps guide the capsulorrhexis.

“Having dealt for a decade with the challenges of [intraoperative floppy iris syndrome] and other small pupil situations, it is clearly time for an advance in surgical management strategies,” Kenneth R. Kenyon, MD, Beaver Visitec International Consulting Medical Director and Clinical Professor of Ophthalmology at Tufts Medical School and Harvard Medical School, Boston, said in the news release.

Alcon Introduces Upgrades for LenSx Laser, ORA, and Verion

Alcon introduced a software upgrade for the LenSx Laser as well as enhancements to the ORA System and Verion Image Guided System, according to company new releases.

The software upgrade for the LenSx Laser enables customized flap creation, offering more options to fit each patient’s needs, including a blade-free option for laser refractive procedures. The flaps can be customized via hinge location

KAMRA INLAY RECEIVES FDA APPROVAL

AcuFocus has received FDA approval for the Kamra inlay, according to a company news release. The inlay is indicated to improve near vision by extending depth of focus in presbyopic patients who have emmetropic refractions (0.50 to -0.75 D).

The approval was based on the results in 508 patients treated at 24 investigational sites worldwide. Patients in the clinical study experienced an average improvement in near UCVA of 3 lines between their preoperative exam and the 12-month follow-up visit. This improvement was maintained over the 5-year duration of the study. Mean preoperative distance UCVA in the inlay-implanted eye was maintained across all follow-up exams, the news release said.

“Surgical options for patients frustrated with near vision loss have previously been limited and often required patients to accept compromises like loss of effect over time,” John Vukich, MD, an Associate Clinical Professor at the University of Wisconsin-Madison Medical School, Madison, Wisconsin, said in the news release. “With the Kamra inlay now available in the United States, we have a safe, effective, and long-term solution for presbyopes that is designed especially for their needs.”

The Kamra inlay received the CE Mark for use in the European Union in 2005.

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Schwind Releases SmartPulse Technology for Amaris Products

Schwind eye-tech-solutions launched its SmartPulse technology, a feature that accelerates visual acuity recovery after treatment, for the Amaris product family, a company news release said.

According to Schwind, SmartPulse optimizes the smoothness of the corneal surface and uses a geometric model based on a fullerene structure. This 3-D model describes the curvature of the cornea, and the fullerene structure makes it possible to position the pulses more closely than before. The latest measurement and analysis methods also help make optimum use of the spot geometry. SmartPulse improves vision quality in the early postoperative phase of all treatment methods, with both stromal and surface approaches, the news release said said.

According to the 1-month results of a recent multicenter evaluation including more than 1,000 eyes, the SmartPulse feature yielded faster recovery and higher visual acuity in the early postoperative phase, Schwind reported in a news release. Treated patients were myopes and hyperopes with or without astigmatism. The preoperative spherical equivalent (SEQ) ranged from -12.25 to 3.25 D, and astigmatism was treated up to 8.00 D. All patients underwent transepithelial PRK. Postoperative follow-up took place in 66% of treated patients directly after surgery, in 60% of patients after 1 day, in 59% of patients after 1 week, in 41% of patients after 2 weeks, and in 46% of patients after 1 month.

Immediately after ablation, 90% of treated eyes achieved a visual acuity of 20/63 or better. Without SmartPulse, less than 20% achieved this value; with SmartPulse, a comparable percentage of patients achieved 20/32 or better. On postoperative day 1, 92% of patients had a visual acuity of 20/50 or better, and 1 week after treatment, 81% achieved 20/32 or better.

At 1 week postoperative, mean distance UCVA was 20/27, increasing to 20/20 at 1 month after treatment. From 2 to 4 weeks postoperatively, 86% of patients achieved 20/25 or better. At 1 month postoperatively, mean SE was 0.13 ±0.42 D, and mean astigmatism was 0.27 ±0.28 D. Eighty-one percent of 538 eyes were within the range of ±0.50 D from target SEQ, and 45% achieved the target refraction, with a minimum deviation of ±0.13 D. Eighty-four percent of eyes had residual astigmatism of 0.50 D or less, the news release said.

Laser Anterior Capsulotomy May Trigger Increased Prostaglandin Level in Aqueous Humor

A study published in the *Journal of Refractive Surgery* identified anterior capsulotomy as the main trigger for an increase of prostaglandins in the aqueous humor immediately after laser-assisted cataract surgery (LACS).1

Tim Schultz, MD, of the Institute of Vision Science, Ruhr University Eye Hospital in Bochum, Germany, and colleagues conducted a study to investigate a possible correlation between intraocular prostaglandin concentrations and partial steps of LACS. Aqueous humor was collected from 67 patients after LACS pretreatment (only capsulotomy, only fragmentation, or both) and at the beginning of routine cataract surgery. Total prostaglandin levels were measured in all four groups using an enzyme-linked immunoassay.

The investigators found that significantly higher levels of aqueous humor prostaglandins were detected right after the full treatment (capsulotomy and fragmentation; 330.6 ±110.6 pg/mL; *P*<.01) or after only laser capsulotomy (362.4 ±117.5 pg/mL; *P*<.01), whereas the control group showed lower values (52.5 ±8.1 pg/mL). By itself, LACS fragmentation did not lead to a prostaglandin increase (186.8 ±114.0 pg/mL; *P*<.14).

“Optimized energy settings in combination with [NSAIDs]...
might help reduce the phenomenon of laser-induced miosis,” the study authors concluded.


Preoperative Warm-Up Could Decrease Cataract Surgical Times

The results of a retrospective case controlled study, published in the Journal of Cataract & Refractive Surgery, suggest that the order of surgical cases might not affect complication rates for cataract surgery and that a preoperative warm-up exercise might decrease procedure times.1

The study reviewed 1,424 consecutive patients who underwent phacoemulsification from June 2010 to December 2011. The investigators evaluated the case order for each surgeon, comparing intraoperative complication rates and case times for attending and resident surgeons for the first case of the day (considered the warm-up case) versus subsequent cases. Simple and complex phacoemulsification surgeries were included. Patients who underwent cataract surgery combined with another surgery were excluded. Pearson chi-square tests and 2-tailed independent-sample t tests were used to analyze data.

The cataract surgery complication rates were not statistically different between the first cases of the day and subsequent cases (3.3% vs 4%; P=.552). There was a significant difference in mean case time between these groups. The mean case time for simple phacoemulsification by resident physicians was 49.45 ± 19.38 minutes (standard deviation) for first cases of the day and 42.27 ± 15.78 minutes for subsequent cases (P=.021) and by attending physicians, 32.54 ± 12.91 and 26.69 ± 9.17 minutes, respectively (P<.0001).

“Our study showed that surgical warm-up does not affect complication rates associated with cataract surgery, but it does decrease cataract surgery time by 15% to 19% for both trainee and expert surgeons,” Parisa Taravati, MD, told Cataract & Refractive Surgery Today Europe. “Our findings suggest that a preoperative warm up exercise may decrease cataract surgery time for surgeons of all levels of experience.”


Statins May Lower Users’ Risk of Developing Uveitis

Statins may be protective against the development of uveitis, and several antiinflammatory and immunomodulatory mechanisms may explain this association, according to a study in the American Journal of Ophthalmology.1

The medical records of all patients in the Kaiser Permanente Hawaii health plan between January 1, 2006, and December 31, 2007 (n=217,061), were searched electronically for International Classification of Diseases, 9th Revision, diagnosis codes related to uveitis. The investigators performed a chart review to confirm incident uveitis diagnosis during the study period.

Two control groups were each randomly selected at a 5:1 ratio to cases, and controls were assigned an index date to match their respective case diagnosis date. One control group was selected from the general Kaiser Permanente Hawaii population that had at least one health care visit during the study period. Another control group was selected from the population of Kaiser Permanente Hawaii members who had at least one visit to the ophthalmology clinic during the study period. Statin use was defined as filling a prescription for a statin medication in the year prior to the diagnosis or index date based on an electronic search of the Kaiser Permanente Hawaii pharmacy database for generic product identification codes.

When the investigators applied a conditional logistic regression model with the clinical diagnosis of uveitis as the outcome to assess the relationship between statin use and uveitis, they identified 108 incident cases. Of these, 19% of patients with uveitis had used a statin medication in the year prior to diagnosis compared to 30% in the general Kaiser population control group (P=.03) and 38% in the ophthalmology clinic control group (P<.001). Using the general Kaiser population control group and adjusting for age, sex, race, and autoimmune diseases, the odds of a statin user’s developing uveitis were 48% lower than the odds that someone who did not use statins would develop uveitis (odds ratio, 0.52; 95% CI, 0.29–0.94; P=.03). Similarly, the odds of developing uveitis were 33% lower for statin users compared with nonusers (odds ratio, 0.67; 95% CI, 0.38–1.19, P=.17) when adjusting for these factors and using the ophthalmology clinic control group. ■


– Compiled by Callan Navitsky, Senior Editor; and Steve Daily, Executive Editor, News
Mindfulness-Based Therapy Shows Promise for Depression
Guided meditation and mindfulness skills were found to be as effective as medication in individuals with depression.

Another Study Reveals No Link Between MMR Vaccine and Autism
The vaccine for measles, mumps, and rubella does not bring an increased risk of autism, according to a new study of more than 95,000 children.

World-First MRI Study Shows Babies Experience Pain Like Adults
Many of the same regions of the brain that activate in adults in response to pain are also active in the brains of babies.
www.medicalnewstoday.com/articles/292717.php

Researchers Identify Six Types of Obese People
Treating distinct groups differently may be more effective in dealing with obesity.
www.theguardian.com/society/2015/apr/18/obesity-affects-six-different-types-of-people-study

Each Hour Spent Watching Television Increases Diabetes Risk
Less time spent watching TV over a 3-year period translated to a lower risk of developing diabetes, a study found.