

Get to Know Keynote Speaker **Abraham Verghese, MD, MACP**

EyeNet
MAGAZINE

SCIENTIFIC HIGHLIGHTS OF CHICAGO 2012

Academy News



AMERICAN ACADEMY
OF OPHTHALMOLOGY
The Eye M.D. Association

SECOND EDITION WITH A FOCUS ON

SUNDAY, MONDAY & TUESDAY



Laser Refractive Cataract Surgery is a Reality with Alcon's LenSx® Laser.

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Putting the Future in Motion™

Alcon®

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FOR THE RECORD

ANNUAL BUSINESS MEETING. Notice is hereby given that the Annual Business Meeting of the American Academy of Ophthalmology will be held on Sunday, Nov. 11, in North Hall B of the McCormick Place Convention Center in Chicago, from 10 to 10:30 a.m.

The order of business shall be:

Call to order	New business
Report of the president	Announcements and notices
Report of the executive vice president	Adjournment
Election of fellows and members	

As stated in the bylaws of the Academy, the order of business of each Annual Business Meeting may be amended by an affirmative vote of a majority of the voting fellows and members present and voting at the meeting.

NOTICE: This publication was printed in advance of Subspecialty Day and the Joint Meeting. Check the Online Program (www.aao.org/2012) for the most up-to-date information.



Putting the Future in Motion

Indication:

The LenSx® Laser is indicated for use in patients undergoing cataract surgery for removal of the crystalline lens. Intended uses in cataract surgery include anterior capsulotomy, phacofragmentation, and the creation of single plane and multi-plane arc cuts/incisions in the cornea, each of which may be performed either individually or consecutively during the same procedure.

Caution:

United States Federal Law restricts this device to sale and use by or on the order of a physician or licensed eye care practitioner. United States Federal Law restricts the use of this device to practitioners who have been trained in the operation of this device.

Restrictions:

- Patients must be able to lie flat and motionless in a supine position.
- Patient must be able to understand and give an informed consent.
- Patients must be able to tolerate local or topical anesthesia.
- Patients with elevated IOP should use topical steroids only under close medical supervision.

Contraindications:

- Corneal disease that precludes applanation of the cornea or transmission of laser light at 1030 nm wavelength
- Descemetocoele with impending corneal rupture
- Presence of blood or other material in the anterior chamber
- Poorly dilating pupil, such that the iris is not peripheral to the intended diameter for the capsulotomy
- Conditions which would cause inadequate clearance between the intended capsulotomy depth and the endothelium (applicable to capsulotomy only)
- Previous corneal incisions that might provide a potential space into which the gas produced by the procedure can escape
- Corneal thickness requirements that are beyond the range of the system
- Corneal opacity that would interfere with the laser beam
- Hypotony, glaucoma, or the presence of a corneal implant
- Residual, recurrent, active ocular or eyelid disease, including any corneal abnormality (for example, recurrent corneal erosion, severe basement membrane disease)
- This device is not intended for use in pediatric surgery
- A history of lens with zonular instability.
- Any contraindication to cataract or keratoplasty surgery.

Attention:

Reference the Directions for Use labeling for a complete listing of indications, warnings and precautions.

Warnings:

The LenSx® Laser System should only be operated by a physician trained in its use.

The LenSx® Laser delivery system employs one sterile disposable LenSx® Laser Patient Interface consisting of an applanation lens and suction ring. The Patient Interface is intended for single use only. The disposables used in conjunction with ALCON® instrument products constitute a complete surgical system. Use of disposables other than those manufactured by Alcon may affect system performance and create potential hazards.

The physician should base patient selection criteria on professional experience, published literature, and educational courses. Adult patients should be scheduled to undergo cataract extraction.

Precautions:

- Do not use cell phones or pagers of any kind in the same room as the LenSx® Laser.
- Discard used Patient Interfaces as medical waste.

AEs/Complications:

- Capsulotomy, phacofragmentation, or cut or incision decentration
- Incomplete or interrupted capsulotomy, fragmentation, or corneal incision procedure
- Capsular tear
- Corneal abrasion or defect
- Pain
- Infection
- Bleeding
- Damage to intraocular structures
- Anterior chamber fluid leakage, anterior chamber collapse
- Elevated pressure to the eye

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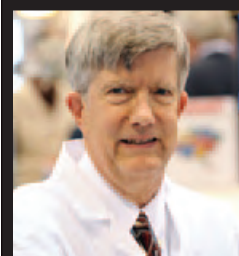
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FROM THE EDITOR

Welcome to Chicago!

The Academy is proud to present its 116th Annual Meeting, jointly sponsored this year by the Asia-Pacific Academy of Ophthalmology (APAO). It commences with the Opening Session, which will begin with the APAO President's Address, by Frank Joseph Martin, MD. The Opening Session also features the keynote address by Abraham Verghese, MD, MACP, renowned physician, bestselling author of *Cutting for Stone*, and Professor for the Theory and Practice of Medicine at Stanford University School of Medicine. In addition, Joan W. Miller, MD, will give the Jackson Memorial Lecture, "AMD Revisited—Piecing the Puzzle."

This year, there are four Spotlight Sessions covering hot topics in ophthalmology—Innovation in Ophthalmology: From Theory to Therapy; Corneal Collagen Crosslinking; Spotlight on Cataracts: Clinical Decision-Making With Cataract Complications; and Spotlight on Pseudoexfoliation. Please note, as well, that there are four new labs in the 57 Skills Transfer labs, which are definitely worth checking out. Be sure to make time for these and other stimulating activities at the meeting this year. Refer to the contents of this *Academy News* for additional information. We hope your time in Chicago is enjoyable and informative.

Richard P. Mills MD

Richard P. Mills, MD, MPH
Chief Medical Editor, *EyeNet Magazine*



ON THE COVER

Angle of Great Horned Owl

Photo by
Leslie MacKeen, CRA
Clarity Medical Systems
Pleasanton, Calif.

A LIFETIME LAYING THE FOUNDATIONS FOR TOMORROW'S DISCOVERIES

The 2012 Academy Laureate, Stephen J. Ryan

BY LINDA ROACH, CONTRIBUTING WRITER

LAUREATE OF THE
AMERICAN ACADEMY
OF OPHTHALMOLOGY

Stephen J. Ryan, MD, has spent the last four decades harnessing the power of institutions for the good of patients and practitioners.

BUILDING AN INSTITUTION. In 1974, Dr. Ryan moved from Johns Hopkins to the University of Southern California (USC) to become the department chairman, as well as the first full-time faculty member in ophthalmology. In 1975, the Doheny Eye Institute relocated to the university and provided Dr. Ryan the opportunity to recruit and build the institute's department from the ground up.

Thus began the transformation of the institute into one of the top university-based ophthalmic teaching, clinical, and research centers. By wooing charitable foundations and individuals—including grateful patients—for capital donations, and advocating to Congress to increase funding for research grants, Dr. Ryan built Doheny into a respected institution. In 2011 alone, Doheny scientists received \$21.8 million in federal and state grants and published more than 180 scientific papers. Moreover, Doheny has seeded clinics and hospitals around the world

with ophthalmic physicians and vision scientists who have the medical, surgical, and intellectual tools required to deliver excellent patient care and establish cutting-edge research in their own institutions.

MAKING A CLINICAL BREAKTHROUGH. His accomplishments at Doheny alone might explain the Laureate Recognition Award that Dr. Ryan is receiving during the Opening Session. However, his impact on ophthalmology extends well beyond the role that the Doheny Institute has played in training over three decades' worth of residents, fellows, and international scholars. In addition, Dr. Ryan's decades of behind-the-scenes vision research continue to provide substantial benefit to patients today—every time an ophthalmologist injects an antiangiogenic drug into a patient's eye, every time a patient with age-related macular degeneration (AMD) hears the good news that the neovascularization is regressing, or every time that a patient thanks his lucky stars for the drug that is saving his sight.

It was Dr. Ryan who, in the late 1970s and early 1980s, designed and led the

basic science studies that would produce the first animal model of choroidal neovascularization that could be used to examine the pathogenesis and treatment of neovascular diseases such as AMD. This breakthrough set vision researchers on a road that eventually led to the antiangiogenic drug therapies that are helping patients today.

"This was not the type of work where drug company X releases drug Y that helps patients. This is the step prior to that," said Ronald E. Smith, MD, professor and chairman of the Doheny Institute's department of ophthalmology. He and Dr. Ryan have been friends since both were at Johns Hopkins. "Somebody has to create the model to study a disease before effective drugs and other treatments can be developed and tested."

But with a busy retina practice to attend to and his many administrative duties at USC in building a department, why did Dr. Ryan not leave the research to someone else?

"I'm a clinician interested in retinal diseases, which affect my patients," Dr. Ryan said. "As a clinician-scientist, I



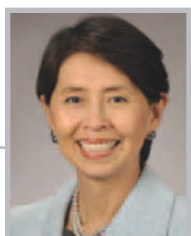
DR. RYAN receives the Laureate Recognition Award during the Opening Session, which takes place Sunday, 8:30 to 10 a.m., in North Hall B. The award is given annually to honor physicians who have made the most significant contributions to ophthalmology leading to the prevention of blindness and restoration of sight worldwide.

Academy News Interviews Ruth D. Williams, MD, About Her Presidential Award Selections

As the 2012 Academy president, Ruth D. Williams, MD, has the privilege of inviting three individuals to be her Guests of Honor at the Joint Meeting and of selecting the recipient of the Academy's Distinguished Service Award. All of Dr. Williams' honorees have influenced her both personally and professionally. Below, Dr.

Williams shares with readers of *Academy News* her reasons for acknowledging these influential individuals and the selected organization. Today, Sunday, Dr. Williams recognizes each Guest of Honor and the Distinguished Service Award recipient at the Opening Session, which takes place from 8:30 to 10 a.m. in North Hall B.

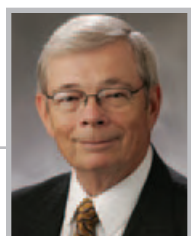
GUEST OF HONOR



Emily Y. Chew, MD, PhD

Emily Chew is a distinguished scientist at the National Eye Institute. She is articulate and deeply respected by her peers. As deputy director of the Division of Epidemiology and Clinical Applications at the National Eye Institute, she has amassed extensive experience in designing and implementing NIH clinical trials. She has had leadership and data analysis roles in important studies including ETDRS, AREDS, and AREDS 2. In addition, she is currently president of the Macula Society. Of great importance to me, Emily developed this impressive career at a time when few role models existed for women. Along with her husband, ophthalmologist Robert Murphy, she has three daughters, now accomplished young women. Because of Emily Chew, I knew that I could achieve excellence in my career as I raised my own family.

GUEST OF HONOR



H. Dunbar Hoskins Jr., MD

Dunbar Hoskins has shaped the profession of ophthalmology; he has also shaped me. More than 20 years ago, I was a Shaffer Fellow in glaucoma, and Dunbar was my teacher. Later, he provided the opportunity to begin my career in organized medicine as the Academy's delegate to the American Medical Association.

Dunbar's love of ophthalmology inspired me, and he modeled how extraordinary this life could be. A man of integrity and principles, Dunbar was fearless in speaking truth and in challenging me to think differently, but always with his winsome manner. Often dropping nuggets of terrific advice, including one quote I remember especially well, he said: "People may not remember what you say, but they will always remember how you say it." Because Dunbar believed in me, I believed in myself.

GUEST OF HONOR

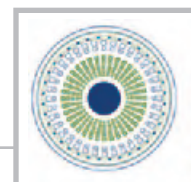


Stephen C. Gieser, MD

The first spouse ever to be recognized as a Guest of Honor, Stephen Gieser—my husband—is a fourth-generation physician and a third-generation ophthalmologist. Steve is a glaucoma consultant at the Wheaton Eye Clinic, in Illinois.

A characteristic of our life together—one fueled by his insatiable curiosity—is continuous learning. Steve turns every vacation, every activity, and, indeed, every day, into a classroom of discovery. He is a naturalist, a beekeeper, an amateur geologist, a classical music expert, a gardener extraordinaire; and he raises chickens. I thank him for tolerating conference calls, for managing children on the weekends when I am traveling, for cheerfully attending Academy spouse events, and for pushing me to be my best. Steve provides the support and teamwork that makes my career possible.

DISTINGUISHED SERVICE AWARD



National Alliance for Eye and Vision Research (NAEVR)

Led by Board President Stephen J. Ryan, MD, and Executive Director James Jorkasky, NAEVR advocates for eye and vision research sponsored by the National Institutes of Health and the National Eye Institute. One of NAEVR's most effective strategies is gathering personal stories from eye patients: Real-life testimony about how vision research or ophthalmic innovation has affected a person's quality of life presents a powerful message to lawmakers. Steve Ryan has testified before Congress many times over the last 25 years to advocate for NIH/NEI ophthalmology funding. Jim Jorkasky dedicates his career to promoting vision research and patient education. NAEVR is an organization with a well-defined purpose that affects the careers of ophthalmologists and researchers; more importantly, it provides hope for those with ophthalmic disease.

**Dedicated to
advancing the
treatment of eye
diseases with
unmet medical need**



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ThromboGenics[™], a biopharmaceutical company focused on developing innovative ophthalmic medicines.

wanted very much to understand the basic mechanisms and pathogenesis of these blinding disorders and, thereby, learn how best to develop logical therapeutic strategies to treat them.”

DEVELOPING MODELS FOR HUMAN APPLICATION. As a researcher, Dr. Ryan had one overarching goal earlier in his career: to advance animal models that could be used to study vitreoretinal disorders such as subretinal neovascularization. Beginning in the late 1970s, Dr. Ryan began publishing papers detailing his lab’s attempts to trigger choroidal neovascularization in rhesus monkeys. It took years for his team to succeed, however. “I was fortunate as a medical student at Johns Hopkins and as a resident at the Wilmer Eye Institute to learn the lesson that you can put in a tremendous amount of effort and not come up with an expected outcome of research,” said Dr. Ryan. “We tried all sorts of approaches in our neovascularization studies that did not work or were not reproducible,” he added. “I was injecting blood beneath the retina. We were injecting eyes with different lytic enzymes that we thought might result in breaks in Bruch’s membrane. We did a lot of work both here at Doheny and earlier

at Wilmer that did not pan out. We experienced a great deal of failure.”

Eventually, Dr. Ryan and his lab members used an argon laser at intense, nontherapeutic settings to produce the injury that caused development of neovascularization beneath the monkeys’ retinas. It was an exciting time, Dr. Smith recalled: “His lab team met every week in his office or in the conference room right next to my office. They had been trying for years to develop the model. I remember that when the model worked and was reproducible, there was a lot of excitement and celebration in that conference room. When you work on something for months or years, then of course there’s a lot of excitement.” Dr. Ryan and his colleagues then used further experiments to refine the model and to study different therapeutic interventions.

CONNECTING TRAUMA WITH RETINAL DETACHMENT. Dr. Ryan’s lab also produced other animal models useful for studying ocular trauma and its vitreoretinal complications, including retinal detachment and the role of tractional forces on the retina. This effort resulted in his second major contribution to better patient care. “His model of ocular trauma of the

posterior segment of the eye led to our understanding of how retinal detachments occur following trauma,” Dr. Smith said. “Prior to his animal work, many considered a rhegmatogenous mechanism. Dr. Ryan and his colleagues showed that it was not primarily rhegmatogenous, but rather the wound-healing response that led to a tractional retinal detachment.” Dr. Smith added, “There was a big argument many years ago about removing the blood after a vitreous hemorrhage. The animal model clarified when to remove the blood via vitrectomy. That was another very important outgrowth of his research in animals that was directly translated into human care in patients undergoing vitrectomy after penetrating ocular injuries.”

When Dr. Ryan was invited to deliver the 49th Edward Jackson Memorial Lecture at the Academy’s Annual Meeting in 1992, he chose to present his work on the mechanisms of wound healing and resultant tractional retinal detachment as a big-picture discussion, covering traction after penetrating ocular injuries and proliferative diabetic retinopathy, as well as vitreoretinopathy after rhegmatogenous retinal detachments.

“When I was a resident, the prevalent view was that a rhegmatogenous component was the main mechanism of retinal detachment after penetrating injuries to the posterior segment,” Dr. Ryan said. “We were able to demonstrate that tractional—not rhegmatogenous—detachment was the key mechanism. That’s a fundamentally important distinction, because that means that it’s the wound-healing process that leads to the detachment.”

Dr. Ryan added, “When the myofibroblasts proliferate, they contract and pull on the vitreous collagen or on the retina itself, and via that mechanism, their force is exerted and the retina detaches. We were able to sort out that pathogenesis and show that by interrupting the process—by removing the stimulus, i.e., the blood from the injury—we had removed the trigger for the wound-healing response and resultant retinal detachment.”

LEADERSHIP ON MANY FRONTS: EDUCATION, RESEARCH, AND PUBLISHING. Dr. Ryan now holds the Grace and Emery Beardsley Chair of Ophthalmology at USC’s Keck School of Medicine. He also is well known for editing *Retina*, an authoritative three-volume reference work with more than 3,000 pages and hundreds of contributors, soon to appear in its fifth edition in 2012.

“I am a proud believer that *Retina* is the standard in the field,” Dr. Ryan said. “Since our field of retina is so dynamic, my fellow authors and editors have done a great job [for the book] to still be at the top of the field 20 years later.”

And most of his research has taken



UNDER THE INFLUENCE OF A GIANT. Dr. Ryan (back, left) with his mentor, Dr. Maumenee (front, center). Also included: Walter J. Stark, MD (back, center), C. P. Wilkinson, MD (back, right), Mrs. Maumenee (front, left) and Mrs. Wilkinson (front, right).

place while he juggled major administrative roles at USC and elsewhere. In addition to leading Doheny since 1975, Dr. Ryan chaired USC’s department of ophthalmology from 1974 to 1995 and he was dean of the medical school, and senior vice president of the university from 1991 to 2004. His efforts on behalf of ophthalmology also include founding the National Alliance for Eye and Vision Research to advocate for research funding.

He currently serves as president of both Doheny and the National Alliance for Eye and Vision Research; chairman of the board of the Arnold and Mabel Beckman Foundation; and as a board member of Allergan, Johns Hopkins Medicine, Johns Hopkins International, and the W. M. Keck Foundation. Dr. Ryan is also home secretary of the prestigious Institute of Medicine (IOM) of the National Academy of Sciences; former chairman of the IOM Membership Committee; and a board member of the International Council of Ophthalmology.

TRACING HIS ROOTS. Dr. Ryan credits his interest in research, education, and international ophthalmology to a giant of academic and clinical ophthalmology: A. Edward Maumenee, MD, director of the Wilmer Eye Institute at Johns Hopkins from 1955 to 1978. “Everything for me started when I was a medical student at Johns Hopkins in the 1960s. I was very fortunate to be under the influence of Ed Maumenee,” Dr. Ryan said.

In his introduction to an oral history of Dr. Maumenee’s professional recollections, Dr. Ryan credited “The Prof” with influencing his medical career from the very beginning:

“As a first-year Hopkins medical student, I entertained thoughts of being a cardiac or neurosurgeon. However, once The Prof made a summer research job available to me at Wilmer, my future course in following my ultimate role model and mentor, Ed Maumenee, had begun. On a very personal basis, he is the reason I look forward to going to work every day in academic ophthalmology.”

Today, Dr. Ryan continues to steer the Doheny Eye Institute as its president, and in the lab, he is trying to make yet another big contribution to clinicians. The target this time is intraocular cellular proliferation.

ETHICS EVENTS IN CHICAGO

Medical Ethics in the Hot Seat: How Compliance With the Academy’s Code of Ethics Can Turn a Good Litigation Defense Into a Great One. (312). **When:** Monday, 9-10 a.m. **Where:** Room S106a. **Access:** Academy Plus course pass required.

In a hypothetical malpractice litigation against an ophthalmologist, the importance of several components of ethical practice will be highlighted: adequate informed consent, adequate pretreatment assessment, appropriate postoperative care, and compliant advertising practices. The dramatization will demonstrate that compliance with the Academy’s Code of Ethics will not only benefit your patients and your practice but could also determine one’s defense against allegations of medical negligence.

The Institutional Review Board Submission Process: Why Should I Care, and What If I Don’t? (574). **When:** Tuesday, 2-3 p.m. **Where:** Room S106a. **Access:** Academy Plus course pass required.

This course will define “research” and the Institutional Review Board (IRB) process in terms of potential ethical issues. The discussion will include existing regulations for ethical research in all settings and types of IRB review (full, expedited, exempt), statutory authority of the Office for Human Research Protections (OHRP), specific regulations and ethical imperatives impacting all human research (prospective and retrospective), and special informed consent required by research.

Via case studies, participants will discuss the following: real-life obstacles in publishing research results if no IRB was consulted prior to the start of research, compassionate care vs. research in off-label drug use with resulting publication of results, the potential pressure to enroll patients in a study where payment is made for each enrollee, and prospective vs. retrospective research practices. The potential consequences of not following ethical practices in IRB submission will also be discussed.

Breakfast With the Experts. (B112, B113, B269, B270, B271, and B451). **When:** Sunday through Tuesday, 7:30- 8:30 a.m. **Where:** Hall A. **Access:** Ticket required.

Sunday, Nov. 11:

- Ethical Relationships Between Physicians and Industry (B112)
- Ethical Expert Witness Testimony: What You Should Know (B113)

Monday, Nov. 12:

- Ethical Dilemmas in Emergency Ophthalmic Care (B269)
- Clinical Practice vs. Research: Ethical Distinctions (B270)
- Practical Aspects of Ethical Comanagement (B271)

Tuesday, Nov. 13:

- The Ethics of Informed Consent (B451)

For more information on ethics courses and CME, the Academy’s Code of Ethics, policies, opinions, guidelines, and more, please visit www.aao.org/about/ethics.

2012 KEYNOTE SPEAKER

Abraham Verghese: Finding the Balance

BY PEGGY DENNY, SENIOR EDITOR

An overarching theme in the life and career of Abraham Verghese, MD, MACP, involves seeking the balance between disparate elements. Among these elements are medicine and writing, different heritages and countries, and—of particular relevance to ophthalmologists—the roles of technology and long-standing medical traditions in the physician-patient relationship. Although these pairs often seem to be in opposition, Dr. Verghese’s work as a doctor, a writer, and an educator demonstrates that, at best, each can complement and help illuminate the other.

Dr. Verghese will present his thoughts on these and other topics in his Keynote Address, which will take place from 9:10 to 9:30 a.m. during the Opening Session in North Hall B on Sunday, Nov. 11, 8:30-10 a.m. After that, he will be in the Resource Center (Booth 508) from 10 a.m. to noon for a book signing.

This story can provide only an introduction to Dr. Verghese’s biography and works. For more information, consult the resources listed at the end of the article.

ACCOMPLISHMENTS

Dr. Verghese is best known to the public for his literary writings, particularly his novel, *Cutting for Stone*, which has spent more than two years on *The New York Times* best sellers list, and two nonfiction books, *My Own Country* and *The Tennis Partner*. Beyond that, he has published numerous articles in periodicals as varied as *The New Yorker*, *Sports Illustrated*, *The Atlantic*, *Esquire*, *Granta*, *The New York Times Magazine*, and *The Wall Street Journal*.

With less fanfare, he has also pursued a distinguished medical and academic career. Board certified in internal medicine, pulmonary diseases, and infectious diseases, he is Senior Associate Chair for the Theory and Practice of Medicine at Stanford University School of Medicine. Before joining the Stanford faculty in 2007, he was a professor at the University of Texas Health Science Center and the founding director of UT’s Center for Medical Humanities & Ethics. In addition, he serves on the board of directors of the American Board of Internal Medicine.

His appointment at Stanford demonstrates a balance achieved between his medical and literary careers: Two days a week are allocated to writing, and the rest to teaching. Moreover, he shares with his medical students the importance of humanities in maintaining empathy for others and understanding patients’ maladies. In many of his lectures and articles, Dr. Verghese alludes to literature in emphasizing the importance of

the patient’s story—in other words, the history—not just for the stated facts but also for the metaphors that patients use to describe their symptoms. He points to the well-known saying of the influential physician and teacher, William Osler, MD: “Listen to your patient, he is telling you the diagnosis.” According to Dr. Verghese, medicine and writing share a common root: an “infinite curiosity about other people.”

THE PATH OF THE PHYSICIAN-WRITER FROM ETHIOPIA.

Dr. Verghese traveled a tortuous path to arrive at his current status. He was born and raised in Addis Ababa, Ethiopia, the son of two physics teachers who were among the hundreds recruited from the state of Kerala, India, in the early days of the reign of Emperor Haile Selassie. Dr. Verghese began attending medical school in Ethiopia but was forced to flee the country during the revolution that deposed the emperor. Memories of his youth are woven into the setting of *Cutting for Stone*, which takes place at a mission hospital in Ethiopia staffed by doctors and nurses from India.

TO NEW JERSEY. From Ethiopia, Dr. Verghese emigrated to New Jersey. Because his educational background did not meet U.S. medical school requirements, he was unable to pursue further training and worked as an orderly in nursing homes. Nevertheless, this time was not wasted, as he recalled: “It was quite a humbling experience and a real eye-opener to what happens to patients when the doctors are not around. I always look at that as some of the most precious medical training I ever received.”

Appropriately, it was the power of a book—*Harrison’s Principles of Internal Medicine*—that impelled him back to medical studies. *Harrison’s* was an essential text in Dr. Verghese’s Ethiopian medical school, and chancing upon a copy, left by a student visiting the nursing home, reawakened his sense of vocation (see “Harrison’s Philosophy”). This book also makes an appearance in Dr. Verghese’s memoir *The Tennis Player*, in which it forms an important bond with his close friend and medical student.

TO INDIA—AND TENNESSEE. In yet another dislocation, Dr. Verghese went to India and completed his medical degree at the University of Madras. He returned to the United States for postgraduate medical education, at East Tennessee State University in Johnson City and at Boston University, specializing in infectious disease. The U.S. training experiences of foreign medical graduates in the 1980s are vividly described in his books, both fiction and nonfiction.

After completing postgraduate train-



Dr. Verghese instructs medical students in the art of the physical examination.

ing, Dr. Verghese returned to East Tennessee State University in 1985 as a faculty member. During that time, HIV-infected patients first began seeking care there. As an infectious disease specialist who had previously treated AIDS patients in his Boston fellowship, Dr. Verghese became the de facto local expert on the condition.

He documented the ways in which the local, mostly rural, people and the medical community responded to the challenges of HIV—which they had previously considered strictly a “big city” problem—in his 1994 book, *My Own Country*. And although he was no longer a student, this experience was profoundly educational: Beyond helping him overcome his admitted biases about HIV patients, it taught him that when a disease cannot be cured, the physician’s other healing skills become all the more valuable. “When you have very little to offer, you offer your care and compassion. ... [You are saying,] ‘I will never leave you. I will not let you die alone or in pain.’”

Dr. Verghese took a temporary respite from medical practice to obtain a Master of Fine Arts degree in creative writing from the University of Iowa in 1991, before moving on to faculty positions at the University of Texas and Stanford University.

THE PHYSICIAN-PATIENT RELATIONSHIP THE PATIENT—OR THE “iPATIENT”?

Although Dr. Verghese has published numerous peer-reviewed journal articles on pneumonia and other infectious diseases, his most influential medical writings are those dealing with the physician-patient relationship and how it has been affected by technology and reimbursement issues. For example, in a *New England Journal of Medicine* article entitled “Culture shock—patient as icon, icon as patient,” he expresses his concern that physicians are

interacting less with the actual, living patient than with the “iPatient,” a surrogate constructed of the multiple test results and high-tech images residing in charts and computers. This direction is spurred by a reimbursement system geared to pay for defined tests and procedures rather than time conducting a careful history and physical examination. Added to that is the specter of litigation if a physician omits certain expensive tests.

What has been lost, according to Dr. Verghese, especially in the United States, are the traditional skills of hands-on medicine and close, direct observation, as exemplified by the physical examination. He considers this central to the doctor-patient relationship—not just for diagnosis but also for establishing the bond of trust between the two. It is the ritual, he says, that defines the internist.

Dr. Verghese is certainly not the first nor the only physician to raise these critical issues. However, his writing skills and high public profile have allowed him to effectively articulate and gain a wide audience for these concerns.

LESSONS FROM INTERNATIONAL CLINICIANS. The medical schools Dr. Verghese attended in Ethiopia and India in the 1970s lacked high-tech diagnostic tools, but he recalls with awe the exquisite bedside skills and gentleness of his clinical teachers there. Apart from their love for the profession of medicine, their finely tuned techniques of observation, palpation, auscultation, and percussion to uncover a disease seemed like “wizardry” to him.

But Dr. Verghese believes that traditional examination methods and modern technology can work together, rather than against each other. The physical examination does not negate an MRI, for example; in fact, “clinicians who are skilled at the bedside examination make better use of

diagnostic tests and order fewer unnecessary tests.”

As a way of bridging these two worlds through education, Dr. Verghese established, within the cutting-edge Stanford Medical School, the “Stanford 25.” This is a program to formally instruct and supervise medical students in the performance of 25 essential physical exam skills, ranging from spleen palpation to funduscopy

(<http://stanfordmedicine25.stanford.edu/the25/>).

APPLICATION TO OPHTHALMOLOGY. The everyday concerns of ophthalmologists differ in some ways from those of internists—Eye M.D.s rarely need to palpate the spleen or examine the tongue, for example. Yet the larger issues articulated by Dr. Verghese resonate across medical specialties. David W. Parke II, MD, Executive

Vice President and CEO of the Academy, observed that “the essential questions are the same: How can the physician maintain the sanctity of the doctor-patient relationship—trust, respect, recognition of individuality—while inserting the benefits of technology?”

Dr. Parke added that ophthalmology is a discipline that offers a particularly rewarding environment for finding a complementary balance among various elements because “Our specialty allows a blending of science, technology, surgery, and long-term patient relationships.” Whatever the changes wrought by innovation or regulation, he said, “Keep the focus on the patient, not the disease. ... Maintaining compassion, earning the patient’s trust, are all the more essential when time is pressed.”

And based on the evidence throughout his body of work, Dr. Verghese would clearly agree.

BOOKS AND SELECTED ARTICLES BY ABRAHAM VERGHESE

My Own Country: A Doctor’s Story. New York: Simon & Schuster; 1994.

The Tennis Partner: A Doctor’s Story of Friendship and Loss. New York: Harper-

Collins; 1998.

Cutting for Stone. New York: Vintage Books; 2010.

Beyond measure: teaching clinical skills. *J Grad Med Educ.* 2010;2(1):1-3.

In praise of the physical examination. *BMJ.* 2009;339:b5448 [with coauthor, Ralph Horwitz, MD].

Culture shock—patient as icon, icon as patient. *N Engl J Med.* 2008;359(26):2748-2751.

The calling. *N Engl J Med.* 2005;352(18):1844-1845.

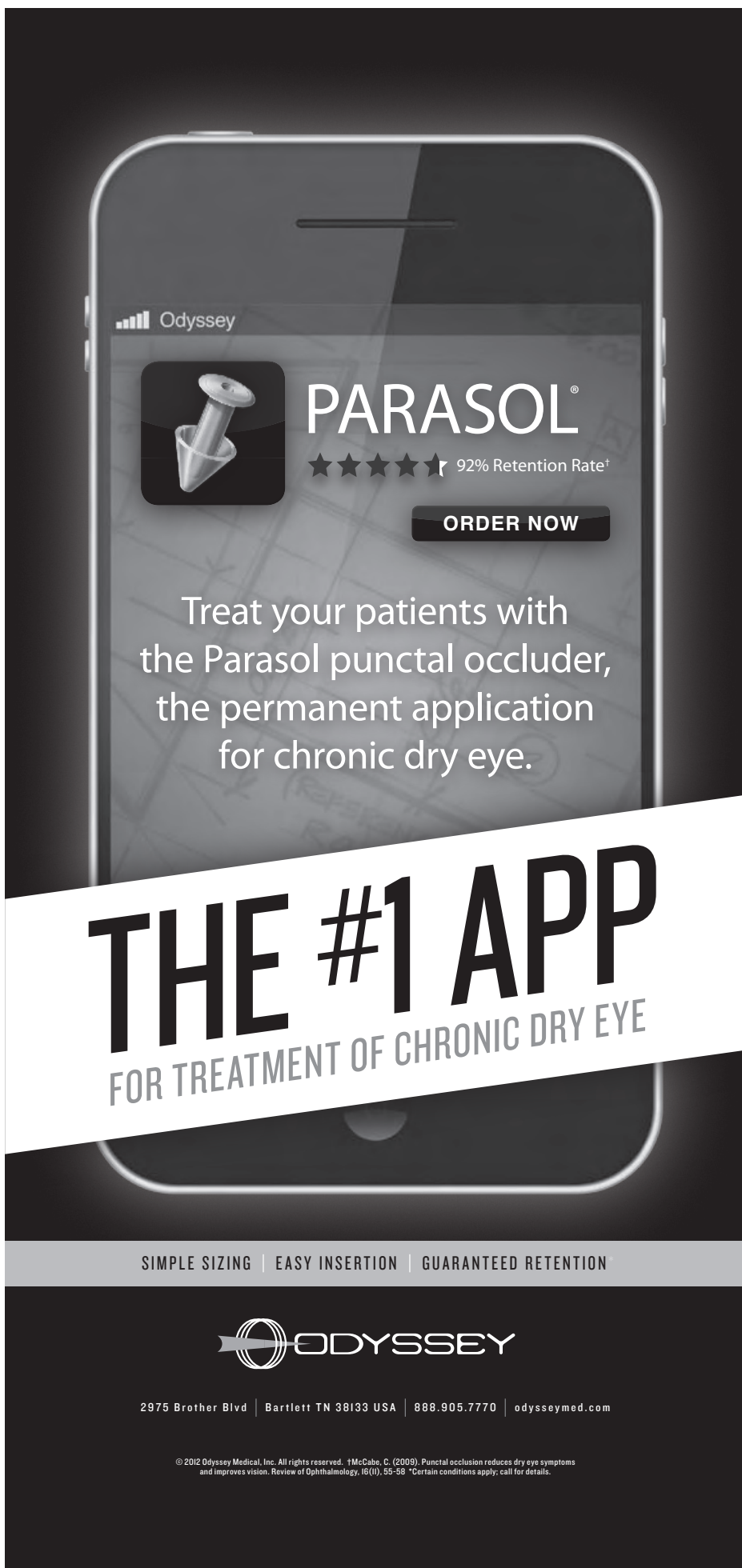
OTHER RESOURCES

Cohen S. The human whisper. *Stanford Magazine.* Jan./Feb. 2009. Available at: http://alumni.stanford.edu/get/page/magazine/article?article_id=30545.

Grady D. Physician revives a dying art: the physical. *New York Times.* Oct. 11, 2010.

Kreger KA. Abraham Verghese: a passionate pursuit. UT Health Science Center. *Mission.* May 2004. Available at: www.uthscsa.edu/mission/article.asp?id=213.

Q&A with Dr. Abraham Verghese: humanities in medical education. UT Center for Medical Humanities and Ethics. Available at www.abrahamverghese.com.



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HARRISON'S PHILOSOPHY

“No greater opportunity, responsibility, or obligation is given to an individual than that of serving as a physician. In treating the suffering, he needs technical skill, scientific knowledge, and human understanding. He who uses these with courage, with humility, and with wisdom will provide a unique service for his fellow man and will build an enduring edifice of character within himself. The physician should ask of his destiny no more than this. He should be content with no less.”

These words—the opening paragraph of *Harrison's Principles of Internal Medicine*—have inspired generations of physicians, including Dr. Verghese, who first read them during his early medical studies in Ethiopia. And upon encountering them again, when working as an orderly in New Jersey, he was moved to return to the study of medicine.

Although this passage was omitted from a later edition of *Harrison's*, it was subsequently reinstated (in a slightly edited form) at the urging of Dr. Verghese and others. Sixty years and 18 editions after the first publication, this statement of fundamental values continues to inspire.

MORE AT THE OPENING SESSION

Dr. Verghese's talk is only one part of this year's highly informative and enjoyable 2012 Joint Meeting Opening Session. Be sure not to miss a minute of this year's outstanding event.

Two presidents—**Frank J. Martin, MD**, of the Asia-Pacific Academy of Ophthalmology, and **Ruth D. Williams, MD**, of the American Academy of Ophthalmology—will welcome attendees to Chicago and honor some of the profession's leading figures in the awards ceremony. Among those being recognized is **Stephen J. Ryan, MD**, who will receive the Laureate Award for his groundbreaking work in vitreoretinal disease and ocular trauma. See pages 4 through 6 for a biographical sketch of Dr. Ryan and the president's Guests of Honor, as well as information on the Distinguished Service Award.

The Jackson Memorial Lecture is perhaps the most prestigious invited lecture in ophthalmology. This year's distinguished speaker is **Joan W. Miller, MD**, who will present “AMD Revisited—Piecing the Puzzle.” Dr. Miller is chief of ophthalmology at Massachusetts Eye and Ear Infirmary and Massachusetts General Hospital as well as chair of ophthalmology at Harvard.

She provided a preview of her lecture: “I will be discussing our current understanding of age-related macular degeneration (AMD). In recent years we have witnessed important innovation in the treatment of neovascular AMD. Now, with advances in genetic and functional studies, we are closer to a more complete understanding of the pathogenesis of AMD, and we hope that this knowledge will allow us to design more elegant treatments directed at prevention and early intervention in order to prevent any vision loss from AMD.”

FALL INTO THE *WINDY* CITY

Catch the leading experts in eye care at Allergan Booth #1408

Saturday, November 10

9:30 AM

Treatment of Macular Edema Due to Retinal Vein Occlusion
Shree Kurup, MD

10:00 AM

Treatment of Allergic Conjunctivitis
Rajesh Rajpal, MD

10:30 AM

Management of the Post-operative Cataract Surgery Patient
Karl Stonecipher, MD

11:00 AM

Treatment of Hypotrichosis
Steve Yoelin, MD

12:00 PM

Detecting and Managing Glaucoma Progression
Louis B. Cantor, MD

12:30 PM

RESCUE ME!—Interactive Cases
Robert Osher, MD

1:00 PM

IOP Lowering: Options for Starting or Replacing Therapy
Jonathan Myers, MD

1:30 PM

Conquering Capsule Complications—Strategies for Complicated Cataracts
David Chang, MD

2:00 PM

Treatment of Macular Edema Due to Retinal Vein Occlusion
Ron Gallemore, MD, PhD

3:00 PM

Focus on Dry Eye Disease
Christopher Starr, MD, FACS

3:30 PM

Making Social Media “Work” for Your Practice

Joe Casper, MBA, COE, OCS, Senior Eye Care Business Advisor, Allergan, Inc.

Eric Abrantes, Marketing Director, Advanced Eye Centers

Sunday, November 11

9:30 AM

Management of the Small Pupil in Cataract Surgery
Eric Donnenfeld, MD, FACS

10:30 AM

REFRESH OPTIVE™ Advanced
Marguerite McDonald, MD, FACS

11:00 AM

IOP Reduction With Adjunctive Therapy
Nathan Radcliffe, MD

12:00 PM

Treatment of Hypotrichosis
Steve Yoelin, MD

1:00 PM

A Versatile Option in Adjunctive IOP Lowering
E. Randy Craven, MD

1:30 PM

Treatment of Macular Edema Due to Retinal Vein Occlusion
Michael Singer, MD

2:00 PM

Healthcare Reform: What Every Practice Should Know

Mike Driscoll, OCS, Eye Care Business Advisor, Allergan, Inc.

Jeffrey Lemay, Director, Healthcare Reform Initiative, Allergan, Inc.

3:00 PM

Adventures in Darkness
Tom Sullivan

Monday, November 12

9:30 AM

Protecting Your Practice From Theft: Lessons Learned

Jill Maher, MA, OCS, Eye Care Business Advisor, Allergan, Inc.

11:00 AM

Successful Strategies for Effective EMR Implementation

Sherri Boston, MBA, COE, OCS, Eye Care Business Advisor, Allergan, Inc.

Jane T. Shuman, COT, COE, OCS, EyeTechs and *eyebuzz*®

Jeff Grant, President & Founder, Healthcare Management & Automation Systems, Inc.

12:30 PM

Why You Can't Ignore Social Media: As Featured in *Ophthalmology Management*
Greg Raeman, COE, CCOA, OCS, Eye Care Business Advisor, Allergan, Inc.

2:00 PM

Keys to Attracting & Managing Talented Employees

Jim Rienzo, OCS, Senior Eye Care Business Advisor, Allergan, Inc.

Tom Pannullo, COO, Ophthalmic Consultants of Long Island



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Alcon®



HALL HIGHLIGHT

Academy Resource Center

INVEST IN YOUR FUTURE TODAY

FIND IT FAST. See the latest products and learn what services the Academy has to offer at the Resource Center (Booth 508). Academy staff members are on hand at the **Information desk** and throughout the exhibit to answer your questions and help you zero in on the resources that will be most useful for your practice. And while you're here, take a moment to visit the neighboring exhibits: the Academy/OMIC Insurance Center (Booth 1104), the Electronic Office (Booth 114), the Learning Lounge (Booth 107), and the Museum of Vision (Booth 704). If you have only a couple of minutes to spare, be sure to head straight to the **New From the Academy display**.

ACADEMY ONLINE COMMUNITY

Visit the Resource Center's **Clinical Education Demos kiosk** for a live demonstration of the largest online community for ophthalmologists, and learn how you can benefit by interacting with your colleagues from around the world.

ACADEMY STORE

All Academy products are available for purchase at the **Academy Store desk**. Most products are available to be picked up the same day, or you can choose to have your order shipped to you. During the Joint Meeting, enjoy free shipping to U.S. and Canadian addresses.

ADVOCACY

Visit the **Advocacy desk** to learn more about the Academy's advocacy efforts on

behalf of ophthalmology, send a letter to Congress, and contribute to OphthPAC and the Surgical Scope Fund.

CLINICAL EDUCATION: CD/DVD-ROMS AND ONLINE

At the **Clinical Education Demos kiosk**, view the Academy's latest clinical education digital media, including:

- **BCSC.** The new *Basic and Clinical Science Course (BCSC)* eBooks include the full content of all 13 sections, plus self-assessment questions. Special features allow you to search, create notes, and bookmark important entries. The *BCSC* eBooks can be used on nearly any computer or mobile device.
- **Clinical Skills DVD series.** Check out the new *Diagnostic Imaging of Retinal Disease* DVD, and view DVDs that demonstrate the clinical skills needed across several disciplines of ophthalmology.
- **Expert Management DVD series.** Advanced surgical techniques and management strategies for handling major complications are demonstrated in this DVD series, which includes the *Complications During Cataract Surgery: Thermal Injury, Iris Prolapse, Choroidal Hemorrhage, and Dropped Nucleus* DVD.
- **Practicing Ophthalmologists Learning System.** Get a demonstration online of

this comprehensive lifelong learning program that provides a clinically relevant review of topics across all practice emphasis areas, plus self-assessment exams.

■ **ProVision Series 5: Ophthalmic Multiple-Choice Questions With Discussions, Online.** Assess your clinical ophthalmic knowledge with 550 questions covering all practice emphasis areas. This dynamic online program allows you to create timed exams that are customized to your own needs, track your progress, bookmark questions, and more. It provides references for refining your knowledge and can be used on nearly any computer or mobile device.

■ **The Resident Hub.** This robust online learning platform is flexible and simple to manage, and provides high-quality educational activities and resources for ophthalmology residency programs. To see a demo, stop by the **Resident Resources counter**.

CLINICAL EDUCATION: PRINT

At the **Clinical Education Product kiosk**, browse the Academy's latest clinical education print media, including:

- **BCSC.** The 13 volumes of the 2012-2013 *BCSC* include three major revisions: *Section 10, Glaucoma*; *Section 11, Lens and Cataract*; and *Section 12, Retina and Vitreous*.
- **Focal Points.** Stay up to date with a subscription to *Focal Points: Clinical Modules for Ophthalmologists*. Available in online and print versions.
- **Ophthalmic staff training resources.** These materials are designed for everyone on the team, from clerical staff to ophthalmic surgical nurses. New products include the *Ophthalmic Medical Assisting: An Independent Study Course*, 5th ed., textbook and online exam.
- **ProVision Series 5: Ophthalmic Multiple-Choice Questions With Discussions.** This heavily illustrated self-study program provides 550 questions and discussions across all practice emphasis

areas in ophthalmology, including ocular pathology and oncology. The *ProVision* series helps you study for exams and will also help to hone your ophthalmic clinical knowledge.

CLINICAL EDUCATION: QUALITY OF CARE

At the **Clinical Education Product kiosk**, you'll find:

- **PPPs.** Browse the Academy's *Preferred Practice Patterns* and *Summary Benchmarks*, especially the newly revised titles *Amblyopia*; *Esotropia & Exotropia*; *Pediatric Eye Evaluations*; *Refractive Errors & Refractive Surgery*; and *Vision Rehabilitation*. Ask about the new *PPP Clinical Questions*, available free on the ONE Network.
- **OTAs.** Remember to look into the new *Ophthalmic Technology Assessments* on anti-VEGF therapy for DME, cryotherapy for ROP, detection of ROP with digital photography, femtosecond lasers for LASIK flaps, interventions for toxoplasma retinochoroiditis (TRC), options and adjuvants in pterygium surgery, and rebound tonometry in children.

CME REPORTING

To report your Chicago Joint Meeting CME credit at the Resource Center, either type it in at the **CME Reporting/Proof of Attendance kiosk** or fill out your *Final Program's* CME Credit Statement form, which you can drop off conveniently at the **Member Services desk**.

EYESMART

Make sure to visit the **EyeSmart kiosk** to get a demonstration of the EyeSmart website (www.geteyesmart.org) and its Spanish version, *OjosSanos* (www.ojossanos.org), and see why these are the best sites to recommend to your patients seeking information on eye disease and conditions, treatment options, and overall maintenance of healthy vision. Also learn how you can link these sites to your own practice's site.

SPECIAL GUEST

Stop by the Resource Center after Sunday's Opening Session and meet keynote speaker Abraham Verghese, MD, MACP. Dr. Verghese is a renowned physician and lecturer. He will be signing copies of his celebrated novel, *Cutting for Stone*.



EYEWIKI

Tour EyeWiki, a Wikipedia-like online resource for ophthalmologists and the public, launched in 2010 by the Academy and key ophthalmic specialty societies and organizations. Visit www.aao.org/eyewiki, or come get a personal demonstration at the Clinical Education Demos kiosk.

FOUNDATION

Visit the Foundation desk to learn how the Foundation supports the Academy and many of its programs in education, quality-of-care research, and service, including the award-winning public service program, EyeCare America. EyeCare America volunteer physicians can order a recognition certificate and pick up an appreciation gift. Not a volunteer? Sign up and receive a gift.

INFORMATION

Can't find something? Have questions about the Resource Center or the Joint Meeting? Get answers from Academy staff at the Academy Information desk.

■ **Resource Router.** Don't collect and carry a stack of flyers. Use the Resource Router to e-mail yourself handouts with detailed information about a range of Academy products and services. If you have questions or comments for Academy staff who aren't available in the Resource Center, send them a message.

MEMBER SERVICES

Be sure to check out the Member Services desk to join the Academy, AAOE, or ISRS; pay your dues; update your profile; or ask questions about your member benefits. Not a member? Apply for Academy membership while you're in Chicago and save \$100 off the application fee. Save \$55 off the AAOE application fee.

OPHTHALMIC NEWS & EDUCATION (ONE) NETWORK

This member benefit includes interactive online cases and courses submitted by your peers and nearly 700 clinical videos and podcasts, as well as access to six ophthalmic journals, the latest news, practice guidelines, and maintenance of certification resources. The ONE Network also includes dozens of self-assessments. Ask to see a live demonstration at the Clinical Education kiosk.

OPHTHALMOLOGY JOB CENTER WEBSITE

Stop by the AAOE Product kiosk to check out the Academy's online career center for ophthalmologists and ophthalmic professionals at www.aao.org/ophthalmology/jobcenter.

Employers can post jobs online, search for qualified candidates based on specific job criteria, and create an online résumé agent to e-mail qualified candidates on a daily basis. Job seekers can post résumés for free, browse and view available jobs based on their criteria, and save those jobs for later review. Automatic e-mail notifications and access to the National

Healthcare Career Network are also available through this website.

PATIENT EDUCATION

Explore the latest Academy patient education offerings, including:

■ **Video Production Studio.** Take advantage of this once-a-year opportunity to customize the Academy's patient education DVDs or downloadable videos with an on-camera introduction. You can also film a practice ad or public service announcement.

And at the Patient Education Demo and Product kiosks, learn about the following:

■ **Patient Education online subscription products.** Check out the *Downloadable Patient Education Handout Subscription*, which includes English and Spanish handouts that describe eye conditions and treatment options, and the *Digital Eyes Ophthalmic Animations for Patients Subscription*, which includes more than 70 animations in English and Spanish.

■ **Patient Education brochures and other print media.** Peruse the Academy's booklets and brochures—including the new *Dilating Eye Drops* and *Treating*

Facial Lines and Wrinkles brochures.

■ **Patient Education DVDs and downloadable videos.** All nine of the Academy patient education DVDs are also offered as electronic files, giving practices more ways to show these videos to their patients or the public. The many diverse topics include cataract surgery, diabetic retinopathy, dry eye, glaucoma, IOL options for cataract surgery, LASIK, and wavefront; and there are also videos for the waiting room. Videos can be purchased separately or as a package.

PRACTICE MANAGEMENT/AAOE

Want to know what reference and training resources are available for your staff? Check these kiosks and help desks:

■ **AAOE Practice Management and Coding Center.** Academy and AAOE members can browse the entire AAOE product line or sign up for a free, 20-minute consultation with a practice management expert (appointments are recommended).

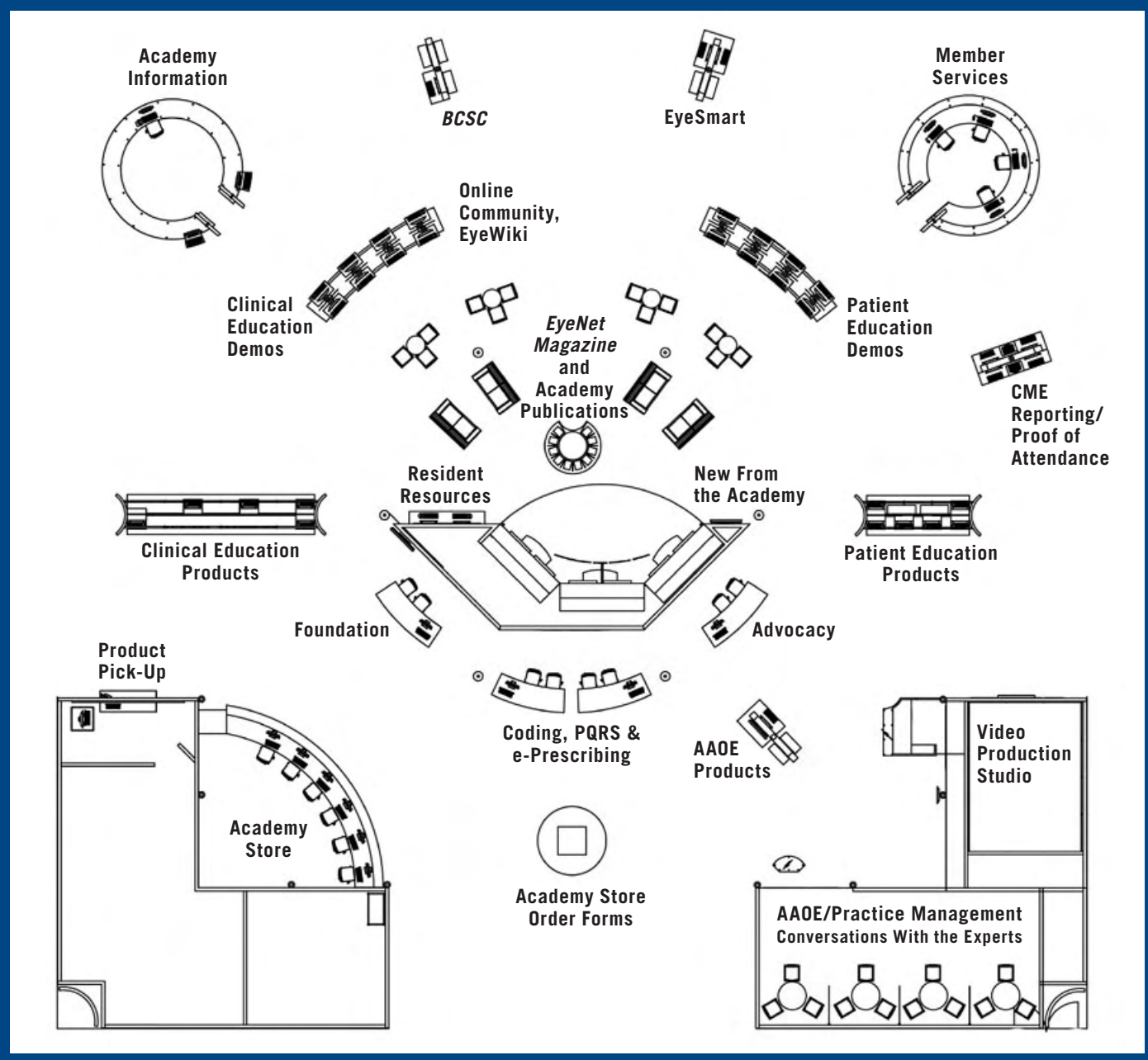
■ **Coding desk.** Stop by and take a look at the new *2013 ICD-10 for Ophthalmology* and ask about the 2013 coding references: the *Ophthalmic Coding Coach* book; the *CPT Pocket Guide for Ophthalmology*;

ICD-9 for Ophthalmology; *CPT Standard and Professional Editions*; and the *HCPCS Manual*. Also see a demonstration of AAOE's online coding products.

■ **Coding, PQRS & e-Prescribing desk.** Wish there were an alternative to claims-based reporting for your practice's PQRS data? Physicians may choose to report their quality measures through the new Academy-sponsored Ophthalmic Patient Outcome Database, which allows full, seamless integration with the CMS-qualified Outcome PQRS Registry. Learn more or sign up at the PQRS desk.

■ **Practice Management guides.** Check out *The Successful Ophthalmic ASC Collection*, featuring modules to help enhance the performance of ophthalmic-oriented ambulatory surgical centers; *The Profitable Practice Collection*, a set of ophthalmology-specific financial management modules; *The Dispensing Ophthalmologist*, a book on operating a profitable dispensary; *Keys to EMR/EHR Success: Selecting and Implementing an Electronic Medical Record*; and other resources covering business operations, compliance, HR, and IT. All of these can be found at the AAOE Product Display kiosk.

THE ACADEMY RESOURCE CENTER BOOTH 508





ZIOPTANTM
(tafluprost ophthalmic solution)
0.0015%

For patients with elevated intraocular pressure (IOP)
in open-angle glaucoma (OAG) or ocular hypertension (OHT)

START WITH ZIOPTAN

6–8 mmHg
at month 3

5–8 mmHg
at month 6

POWERFUL IOP REDUCTIONS

> Based on clinical studies of up to 24 months in 905 patients with a baseline pressure of 23–26 mmHg.

Once-daily, single-use containers

Preservative-free formulation

ZIOPTAN is indicated for reducing elevated IOP in patients with OAG or OHT.

SELECT IMPORTANT SAFETY INFORMATION

ZIOPTAN has been reported to cause changes to pigmented tissues. The most frequently reported changes have been to the iris, periorbital tissue (eyelid), and eyelashes. Pigmentation is expected to increase as long as ZIOPTAN is administered. Pigmentation of the iris is likely to be permanent and may not be noticeable for several months to years, while pigmentation of the periorbital tissue and eyelash changes may be reversible in some patients. The long-term effects of increased pigmentation are not known.

ZIOPTAN may gradually change eyelashes and vellus hair in the treated eye. These changes include increased length, color, thickness, shape, and number of lashes. Eyelash changes are usually reversible on discontinuation of treatment.

ZIOPTAN should be used with caution in patients with active intraocular inflammation (eg, iritis/uveitis) because the inflammation may be exacerbated.

Macular edema, including cystoid macular edema, has been reported during treatment with prostaglandin F_{2α} analogs. ZIOPTAN should be used with caution in aphakic patients, in pseudophakic patients with a torn posterior lens capsule, or in patients with known risk factors for macular edema.

In clinical trials of patients receiving either preservative-containing or preservative-free ZIOPTAN, the most common pooled adverse reaction observed was conjunctival hyperemia, which was reported in a range of 4% to 20% of patients.

Please see the adjacent Brief Summary of the Prescribing Information.



Brief Summary of the Prescribing Information for ZIOPTAN.

INDICATIONS AND USAGE

ZIOPTAN is indicated for reducing elevated intraocular pressure in patients with open-angle glaucoma or ocular hypertension.

DOSAGE AND ADMINISTRATION

The recommended dose is 1 drop of ZIOPTAN in the conjunctival sac of the affected eye(s) once daily in the evening.

The dose should not exceed once daily since it has been shown that more frequent administration of prostaglandin analogs may lessen the intraocular pressure-lowering effect.

Reduction of the intraocular pressure starts approximately 2 to 4 hours after the first administration with the maximum effect reached after 12 hours.

ZIOPTAN may be used concomitantly with other topical ophthalmic drug products to lower intraocular pressure. If more than 1 topical ophthalmic product is being used, each 1 should be administered at least 5 minutes apart.

The solution from 1 individual unit is to be used immediately after opening for administration to 1 or both eyes. Since sterility cannot be maintained after the individual unit is opened, the remaining contents should be discarded immediately after administration.

CONTRAINDICATIONS

None.

WARNINGS AND PRECAUTIONS

Pigmentation

Tafluprost ophthalmic solution has been reported to cause changes to pigmented tissues. The most frequently reported changes have been increased pigmentation of the iris, periorbital tissue (eyelid), and eyelashes. Pigmentation is expected to increase as long as tafluprost is administered. The pigmentation change is due to increased melanin content in the melanocytes rather than to an increase in the number of melanocytes. After discontinuation of tafluprost, pigmentation of the iris is likely to be permanent, while pigmentation of the periorbital tissue and eyelash changes have been reported to be reversible in some patients. Patients who receive treatment should be informed of the possibility of increased pigmentation. The long-term effects of increased pigmentation are not known.

Iris color change may not be noticeable for several months to years. Typically, the brown pigmentation around the pupil spreads concentrically towards the periphery of the iris and the entire iris or parts of the iris become more brownish. Neither nevi nor freckles of the iris appear to be affected by treatment. While treatment with ZIOPTAN can be continued in patients who develop noticeably increased iris pigmentation, these patients should be examined regularly. *[See Patient Counseling Information.]*

Eyelash Changes

ZIOPTAN may gradually change eyelashes and vellus hair in the treated eye. These changes include increased length, color, thickness, shape, and number of lashes. Eyelash changes are usually reversible upon discontinuation of treatment.

Intraocular Inflammation

ZIOPTAN should be used with caution in patients with active intraocular inflammation (eg, iritis/uveitis) because the inflammation may be exacerbated.

Macular Edema

Macular edema, including cystoid macular edema, has been reported during treatment with prostaglandin F_{2α} analogs. ZIOPTAN should be used with caution in aphakic patients, in pseudophakic patients with a torn posterior lens capsule, or in patients with known risk factors for macular edema.

ADVERSE REACTIONS

Clinical Studies Experience

Because clinical studies are conducted under widely varying conditions, adverse reaction rates observed in the clinical studies of a drug cannot be directly compared to rates in the clinical studies of another drug and may not reflect the rates observed in practice.

Preservative-containing or preservative-free tafluprost 0.0015% was evaluated in 905 patients in 5 controlled clinical studies of up to 24-months' duration. The most common adverse reaction observed in patients treated with tafluprost was conjunctival hyperemia which was reported in a range of 4% to 20% of patients. Approximately 1% of patients discontinued therapy due to ocular adverse reactions.

Ocular adverse reactions reported at an incidence of ≥2% in these clinical studies included ocular stinging/irritation (7%), ocular pruritus including allergic conjunctivitis (5%), cataract (3%), dry eye (3%), ocular pain (3%), eyelash darkening (2%), growth of eyelashes (2%), and blurred vision (2%).

Nonocular adverse reactions reported at an incidence of 2% to 6% in these clinical studies in patients treated with tafluprost 0.0015% were headache (6%), common cold (4%), cough (3%), and urinary tract infection (2%).

Postmarketing Experience

The following adverse reactions have been identified during postapproval use of tafluprost. Because postapproval adverse reactions are reported voluntarily from a population of uncertain size, it is not always possible to reliably estimate their frequency or establish a causal relationship to drug exposure.

Eye disorders: iritis/uveitis

In postmarketing use with prostaglandin analogs, periorbital and lid changes, including deepening of the eyelid sulcus, have been observed.

USE IN SPECIFIC POPULATIONS

Pregnancy

Pregnancy Category C.

Teratogenic effects: In embryo-fetal development studies in rats and rabbits, tafluprost administered intravenously was teratogenic. Tafluprost caused increases in post-implantation losses in rats and rabbits and reductions in fetal body weights in rats. Tafluprost also increased the incidence of vertebral skeletal abnormalities in rats and the incidence of skull, brain, and spine malformations in rabbits. In rats, there were no adverse effects on embryo-fetal development at a dose of 3 µg/kg/day corresponding to maternal plasma levels of tafluprost acid that were 343 times the maximum clinical exposure based on C_{max}. In rabbits, effects were seen at a tafluprost dose of 0.03 µg/kg/day corresponding to maternal plasma levels of tafluprost acid during organogenesis that were approximately 5 times higher than the clinical exposure based on C_{max}. At the no-effect dose in rabbits (0.01 µg/kg/day), maternal plasma levels of tafluprost acid were below the lower level of quantification (20 pg/mL).

In a pre- and postnatal development study in rats, increased mortality of newborns, decreased body weights, and delayed pinna unfolding were observed in offsprings. The no observed adverse effect level was at a tafluprost intravenous dose of 0.3 µg/kg/day, which is greater than 3 times the maximum recommended clinical dose based on body surface area comparison.

There are no adequate and well-controlled studies in pregnant women. Although animal reproduction studies are not always predictive of human response, ZIOPTAN should not be used during pregnancy unless the potential benefit justifies the potential risk to the fetus.

Women of childbearing age/potential should have adequate contraceptive measures in place.

Nursing Mothers

A study in lactating rats demonstrated that radio-labeled tafluprost and/or its metabolites were excreted in milk. It is not known whether this drug or its metabolites are excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when ZIOPTAN is administered to a nursing woman.

Pediatric Use

Use in pediatric patients is not recommended because of potential safety concerns related to increased pigmentation following long-term chronic use.

ZIOPTAN™ (tafluprost ophthalmic solution) 0.0015%

Geriatric Use

No overall clinical differences in safety or effectiveness have been observed between elderly and other adult patients.

PATIENT COUNSELING INFORMATION

See FDA-Approved Patient Labeling (Patient Information).

Nightly Application

Patients should be advised to not exceed once-daily dosing since more frequent administration may decrease the intraocular pressure-lowering effect of ZIOPTAN.

Handling the Single-Use Container

Patients should be advised that ZIOPTAN is a sterile solution that does not contain a preservative. The solution from 1 individual unit is to be used immediately after opening for administration to 1 or both eyes. Since sterility cannot be maintained after the individual unit is opened, the remaining contents should be discarded immediately after administration.

Potential for Pigmentation

Patients should be advised about the potential for increased brown pigmentation of the iris, which may be permanent. Patients should also be informed about the possibility of eyelid skin darkening, which may be reversible after discontinuation of ZIOPTAN.

Potential for Eyelash Changes

Patients should also be informed of the possibility of eyelash and vellus hair changes in the treated eye during treatment with ZIOPTAN. These changes may result in a disparity between eyes in length, thickness, pigmentation, number of eyelashes or vellus hairs, and/or direction of eyelash growth. Eyelash changes are usually reversible upon discontinuation of treatment.

When to Seek Physician Advice

Patients should be advised that if they develop a new ocular condition (eg, trauma or infection), experience a sudden decrease in visual acuity, have ocular surgery, or develop any ocular reactions, particularly conjunctivitis and eyelid reactions, they should immediately seek their physician's advice concerning the continued use of ZIOPTAN.

Use with Other Ophthalmic Drugs

If more than 1 topical ophthalmic drug is being used, the drugs should be administered at least five (5) minutes between applications.

Storage Information

Patients should be instructed on proper storage of cartons, unopened foil pouches, and opened foil pouches *[see How Supplied/Storage and Handling]*. Recommended storage for cartons and unopened foil pouches is to store refrigerated at 2-8°C (36-46°F). After the pouch is opened, the single-use containers may be stored in the opened foil pouch for up to 28 days at room temperature: 20-25°C (68-77°F). Protect from moisture.

For more detailed information, please read the Prescribing Information.

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USPI-OS-24521207R003



HALL HIGHLIGHT

Contagion!

LEARN ABOUT OPHTHALMOLOGY'S ROLE IN ERADICATING DISEASE

VISIT THE MUSEUM OF VISION (Booth 704) to see “Contagion! Epidemics in Ophthalmic History,” an exhibit on historic outbreaks. Plague, pestilence, and pandemic are words that have struck fear in people for centuries. Ophthalmology is not immune to these ravages and has been at the forefront of the fight against some of their worst symptoms.

This exhibit discusses contagious diseases, their ophthalmic implications, and the people who worked to find causes and cures. Information on epidemics, their ophthalmic symptoms, and the rise of ocular antibiotics will be on display. Diseases to be showcased include smallpox, yellow fever, ophthalmia neonatorum, and pneumococcal ulcers.

The following can be found at the Contagion! exhibit.

(1) Drawings of patients with hereditary syphilis after “attacks of keratitis.” Illustrations from *A Clinical Memoir on Certain Diseases of the Eye and Ear Consequent on Inherited Syphilis*, by Jonathan Hutchinson, MD, published by John Churchill in London, 1863. Dr. Hutchinson used observation to connect the cause and effect of syphilis before scientific proof was available.

When this book was published, the roots of infection were still largely unknown, but it was suspected that all diseases had causative agents. Dr. Hutchinson identified for the first time keratitis and dental and hearing abnormalities as symptoms of congenital syphilis. The idea that three different clinical conditions could have the same cause represented a large leap in medical thinking.

The method he used was pure observation. Dr. Hutchinson could not scientifically prove that his patients had syphilis—as there was no way to test

for it at the time—but he treated them for the disease nevertheless and recounted approximately 100 cases in which his treatments met with at least some success. Most of these patients were given “the mercurial treatment,” as mercury and its derivatives were commonly prescribed for their laxative effect. During this period of time, mercury or a similar substance was considered necessary to rebalance the body’s humors, since physicians believed that diseases affected the entire body, not just one organ—a philosophy carried over from ancient times.

The body’s humors (black bile, yellow bile, blood, and phlegm) were considered indicative of a person’s physical and mental health. Physicians employed various methods to balance humors including bloodletting, vomiting, and enemas.

Our modern understanding of bacteria and germ theory did not become generally accepted until the 1870s, approximately 10 years after the publication of Dr. Hutchinson’s book. This work opened the eyes of the medical community, eventually leading to the discovery of the bacterium responsible for syphilis in 1905, and its first modern treatment in 1910. (Courtesy of the Abraham Schlossman, MD, Rare Book Collection.)

(2) Panamanian copper-nickel coin minted in 1978, featuring a portrait of Cuban ophthalmologist Carlos Juan Finlay, MD (1833-1915). Dr. Finlay theorized that the mosquito was the vector for yellow fever and published his findings on Aug.

14, 1881. Twenty years later, Walter Reed, MD, and his commission confirmed these findings, which were then implemented during the construction of the Panama Canal. U.S. General Leonard Wood noted, “The confirmation of Dr. Finlay’s doctrine is the greatest step forward made in medical science since [Edward] Jenner’s discovery of vaccination.”

Yellow fever is a particularly deadly virus with a long history in the United States. By one count, yellow fever was America’s most prevalent epidemic between 1650 and 1918, closely followed by cholera, measles, and influenza. In its final stage,

“yellow jack,” as it was sometimes called, caused fever; jaundice; bleeding from mouth, nose, and even eyes; seizures; and liver and kidney failure. Finding the cure for yellow fever required discovering its cause, and Dr. Finlay’s theory catapulted further progress in this area. (Donated by Jay M. Galst, MD.)

(3) Phillips Thygeson, MD, being interviewed for his oral history by Sally Hughes, PhD, 1987. In that oral history, Dr. Thygeson described how he proved that trachoma was caused by bacteria. In 1934, he purposely infected a human volunteer named Clarence Brown. Mr. Brown was then treated with copper sulfate for one year, after which he made a full recovery. Dr. Thygeson said, “He survived and showed the whole trachoma picture from beginning to end. ... This preceded the culture of the organism, but it was a clear-cut demonstration of the etiology.” This exhibit will include the published oral history, some pages from the original manuscript, and trachoma-related books, stamps, and even an instrument. (Oral



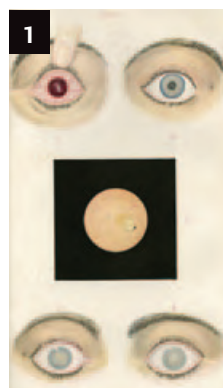
history created by the Foundation of the American Academy of Ophthalmology in partnership with the Regents of the University of California, 1988.)

(4) Stamp issued by France for its colonies, depicting the instillation of medication in the eyes of newborns to prevent ophthalmia neonatorum (a leading cause of childhood blindness), 1950. In 1881, this procedure was introduced by Karl Sigmund Franz Credé, MD (1810-1892). He argued that ophthalmia neonatorum could be greatly reduced with a 2 percent solution of silver nitrate placed directly in the eyes of newborns.

The American Ophthalmological Society championed Dr. Credé’s work in America, and their committee, chaired by Lucien Howe, MD (1848-1928), drafted legislation to make the use of silver nitrate mandatory. In 1890, the Howe Law, as it was known, was passed by the New York State Legislature. Other states soon followed suit, and many still have this law on their books today. (Donated by John F. Bigger, MD.)



Attend the history symposium, where the subject of epidemic diseases will be further expanded upon. There will be eight speakers, including Robin Cook, MD, author of the best-selling book Coma. The symposium will be held on Sunday from 12:15 to 1:45 p.m., Room S405.



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Find the Right Code

AN ACCURATE REFERENCE TO IMPROVE YOUR CODING

EASIER, QUICKER CODING. If you feel like you spend too much time flipping through reference materials, you should consider investing in the **2013 Ophthalmic Coding Coach**. Published by the American Academy of Ophthalmic Executives (AAOE), this reference will be available as a book and as an online subscription. Order it at the Resource Center (Booth 508).

EVERYTHING AT A GLANCE. To illustrate how *Coding Coach* will help your practice to code more accurately and efficiently, consider CPT codes 67930 and 67935 (see sample page). On one page, you have eight key sets of information at your fingertips:

1 RVUs For each procedure, *Coding Coach* lists two numbers in the relative value units (RVU) column—one for when the procedure is performed in the office, the other for when it is performed in a facility. This enables you to verify whether there is a site-of-service

differential whereby you may be paid a higher amount when the procedure is performed in your office than in the hospital. And when you perform multiple procedures in the same operative setting, the code with the higher RVU should be listed first; *Coding Coach* provides an easy way to see which code that would be. (Note: The RVUs listed here are reprinted from the 2012 *Coding Coach*. Those values may change in 2013.)

avoid potential denials without having to review the tables of data published by CMS.

5 Defining the Code For each code, *Coding Coach* provides the AMA's official description, followed by a layperson's definition.

6 Coding Clues These tips are provided by coding experts with at least 18 years of experience in the field.

7 Modifiers By listing which modifiers apply to a particular procedure, *Coding Coach* allows you to apply them with confidence.

8 Diagnosis Codes For each CPT code, see the ICD-9 codes that would establish "medical necessity."

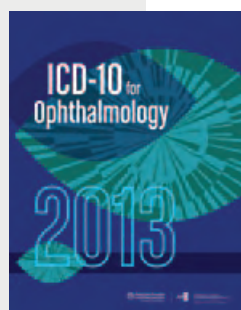
HOW TO BUY CODING COACH. Visit the Academy Resource Center (Booth 508), where you can peruse the 2012 *Coding Coach* at the Coding desk and place an advance order for the 2013 edition at the Academy Store. 2013 *Coding Coach* will be published as both a book (Product #0120333) and an online subscription (#CODNG COACH). In either format it costs \$235 for members and \$390 for nonmembers. Both versions will be published in early 2013.

FOUR WAYS TO GET READY FOR ICD-10

When you implement the ICD-10 codes, you'll be taking part in the biggest change to coding in decades. Indeed, CMS urges practices to spend at least two years preparing for the changeover.¹ How do you get started? While you're in Chicago, take the following four steps.

- 1. On Sunday, attend Physicians + ICD-10: What Can't Be Delegated.** Sue Vicchilli, COT, OCS, explains what physicians must document differently with ICD-10. **When:** Sunday, 2-3 p.m. **Where:** Technology Pavilion (Booth 880). **Access:** Free. Seating is limited.
- 2. On Monday, attend Coding Odyssey.** The transition to ICD-10 will be one of several topics tackled by Ms. Vicchilli, along with audits, PQRS, and e-prescribing during this wide-ranging instruction course (event code 323). **When:** Monday, 9-10 a.m. **Where:** Room S502b. **Access:** Academy Plus course pass required. Seating is limited.
- 3. Buy ICD-10 for Ophthalmology.** This book (#0120335) serves as a reference guide and also provides tips on training programs and system conversions. It costs \$78 for members; \$130 for nonmembers. **Where to buy it:** Go to the Resource Center (Booth 508). Peruse the book at the Coding desk and buy it at the Academy Store.
- 4. Join AAOE.** Enjoy access to the ICD-10 Readiness Web page (www.aaoe.org/icd10), receive updates via the *Coding Bulletin*, use AAOE's online forums to exchange tips on ICD-10 implementation, and much more! **Where to join:** Go to the Resource Center (Booth 508) and visit the Member Services desk. Ask about the different AAOE membership categories.

1 www.cms.gov/Medicare/Coding/ICD10/ProviderResources.html. Accessed Aug. 14, 2012.



3 Assistant at Surgery See if an assistant at surgery may be a covered benefit.

4 CCI Edits The Correct Coding Initiative (CCI) contains edits showing pairs of HCPCS/CPT codes that generally should not be reported together. By listing the CCI edits for each ophthalmic code, *Coding Coach* helps you

67930-67935

Eye and Ocular Adnexa

67930-67935

RVU / FAC	MEDICARE	PRIVATE PAYER	ASST
67930 10.81 / 7.26	10	10	NO
67935 17.62 / 13.30	20	20	NO

4 CCI 67930: 0670, 12001, 12011, 12013, 12014, 12015, 12016, 12017, 12018, 12051, 12053, 12054, 12055, 12056, 12057, 36000, 36400, 36405, 36406, 36409, 36420, 36425, 36430, 36440, 36600, 36640, 37202, 43752, 51701, 51702, 51703, 62318, 62319, 64402, 64415, 64416, 64417, 64430, 64470, 64475, 64505, 64508, 64519, 64517, 64520, 64530, 64550, 67300, 67938, 90760, 90765, 90772, 90774, 90775, 92018, 92019, 93000, 93005, 93010, 93040, 93041, 93042, 93318, 94002, 94200, 94250, 94680, 94681, 94689, 94770, 95812, 95813, 95816, 95819, 95822, 95829, 95955, 96370. **Mutually Exclusive:** 02131, 02161, 02287, 02305, 62310, 62311, 64400, 64405, 64408, 64430, 64432, 64433, 64438, 64439, 64473, 64475, 64479, 64483, 69990, 99148, 99149, +99150

CCI 67935: 0670, 12001, 12011, 12013, 12014, 12015, 12016, 12017, 12018, 12051, 12053, 12054, 12055, 12056, 12057, 36000, 36400, 36405, 36406, 36409, 36420, 36425, 36430, 36440, 36600, 36640, 37202, 43752, 51701, 51702, 51703, 62318, 62319, 64402, 64415, 64416, 64417, 64430, 64470, 64475, 64505, 64508, 64519, 64517, 64520, 64530, 64550, 67300, 67938, 90760, 90765, 90772, 90774, 90775, 92018, 92019, 93000, 93005, 93010, 93040, 93041, 93042, 93318, 94002, 94200, 94250, 94680, 94681, 94689, 94770, 95812, 95813, 95816, 95819, 95822, 95829, 95955, 96370. **Mutually Exclusive:** 02131, 02161, 02287, 02305, 62310, 62311, 64400, 64405, 64408, 64430, 64432, 64433, 64438, 64439, 64473, 64475, 64479, 64483, 69990, 99148, 99149, +99150

5 67930

Suture of recent wound, eyelid, involving lid margin, tarsus, and/or palpebral conjunctiva direct closure; partial thickness

67935

Suture of recent wound, eyelid, involving lid margin, tarsus, and/or palpebral conjunctiva direct closure; full thickness

Definition

Typically due to injury, the eyelid is closed with layers of suture.

6 Coding Clues

- Payment is per eye.
- Codes for blepharoplasty involve more than skin (i.e., involving lid margin, tarsus, and/or palpebral conjunctiva).

7 CPT Modifiers

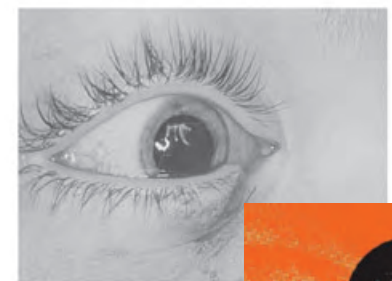
- 25 Significant, separate E&M service same day as minor procedure
- 57 Decision for surgery. Always appended to the appropriate level of exam when performed within three days of surgery.

HCPCS Modifiers

- RT Right eye
- LT Left eye
- E1 Left upper lid
- E2 Left lower lid
- E3 Right upper lid
- E4 Right lower lid

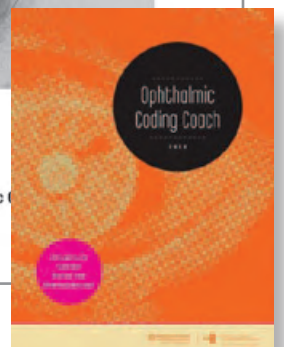
8 Diagnosis Codes

- 870.0 Laceration of skin of eyelid and periocular area
- 870.1 Laceration of eyelid, full thickness, not involving lacrimal passages
- 870.2 Laceration of eyelid involving lacrimal passages
- 870.8 Other specified open wounds of ocular adnexa

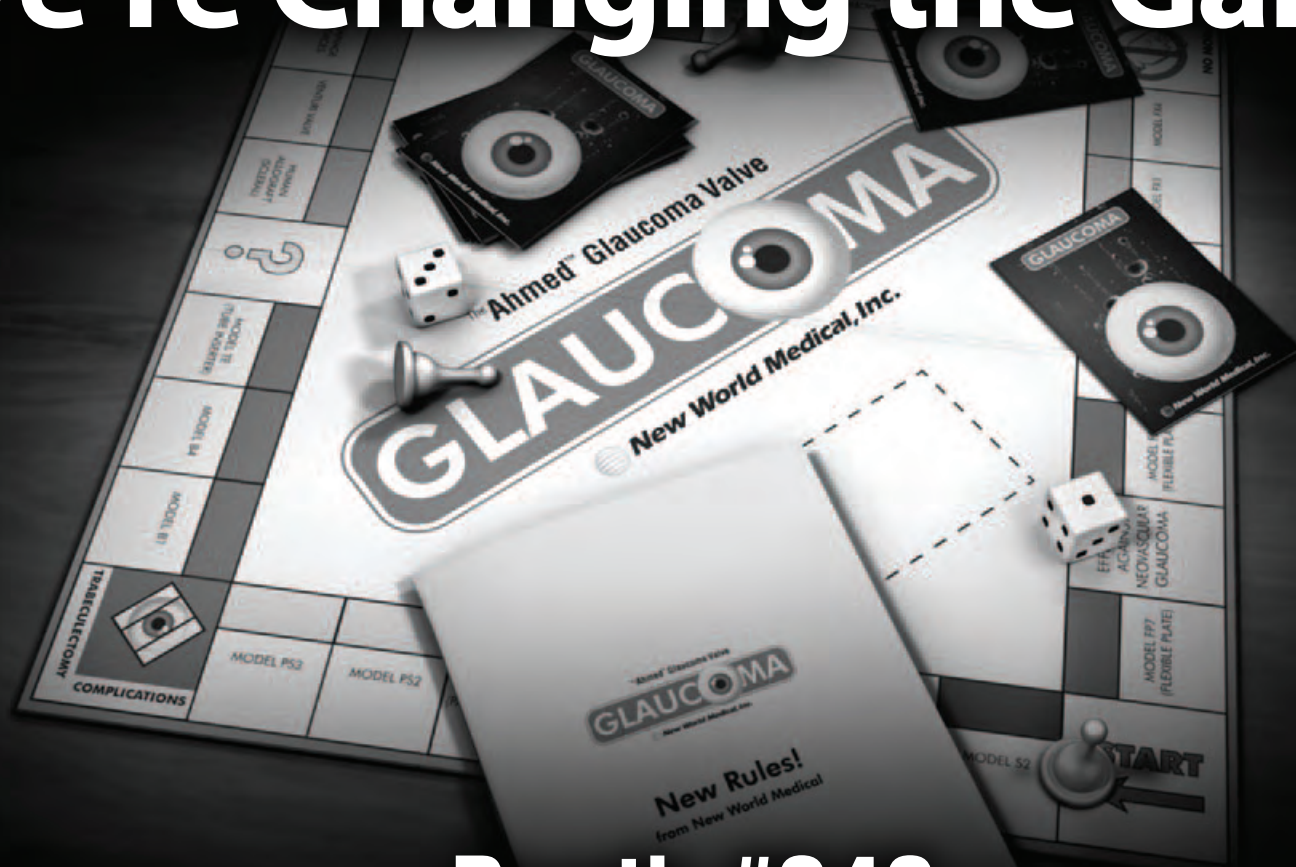


67930 Canalicular laceration repair


2012 Ophthalmic



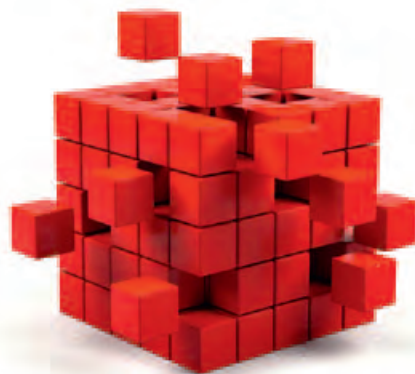
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4 MUST-SEE VIDEOS

Check Them Out on a Screen Near You

VIDEOS ON DEMAND. This year's program consists of 66 videos (see page 118 of your *Pocket Guide*), viewable at the Videos on Demand computer terminals at Booth 165. You may also enjoy this service from your own device by visiting www.aao.org/2012. In addition, the Learning Lounge (Booth 107) will be hosting several "Meet the Producers" sessions for many of these videos throughout the day on Monday (see page 129 of your *Pocket Guide*). The Best of Show winners are listed below.

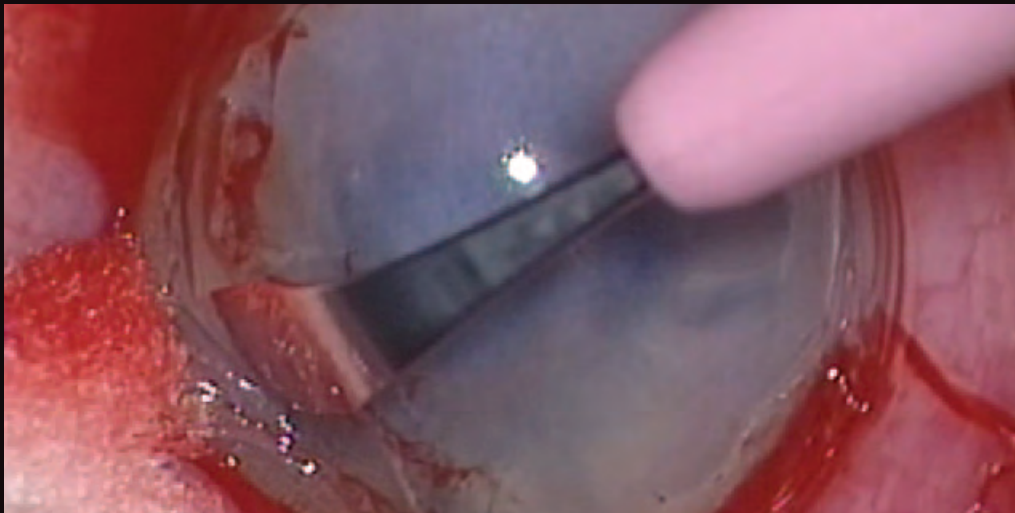
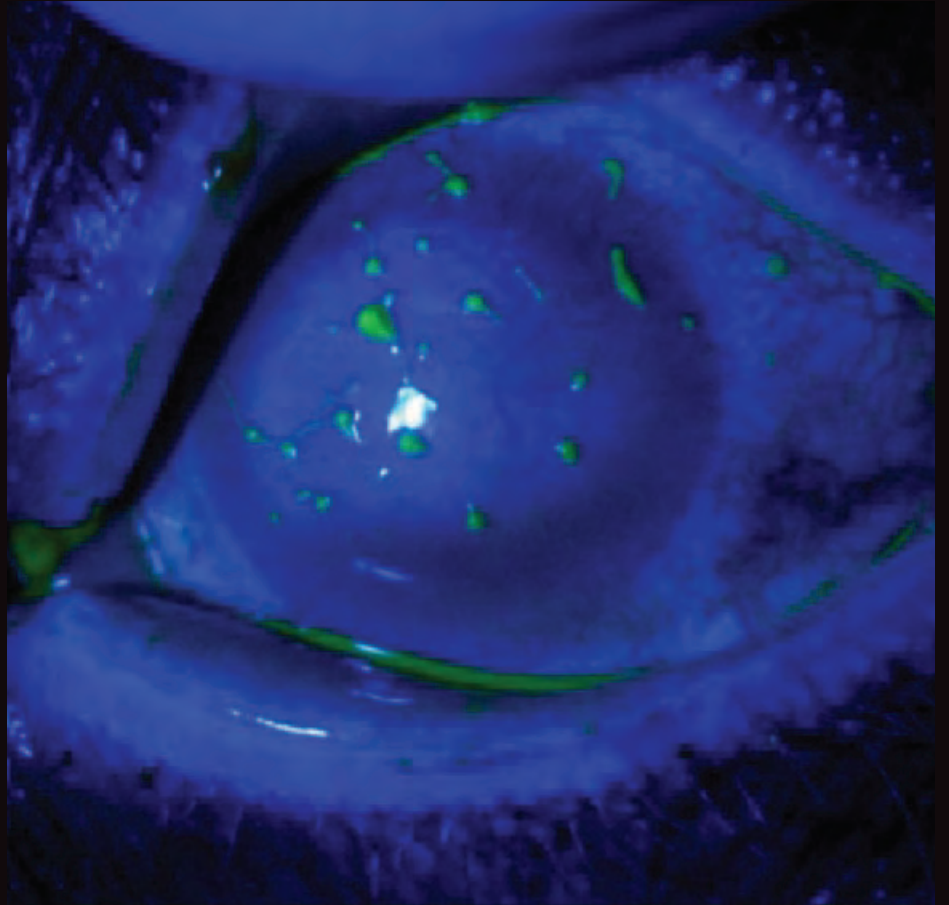
CORNEA

Excimer Laser Phototherapeutic Keratectomy: Case-Based Scenarios for Better Understanding (V53)

Various corneal conditions cause opacity, as in corneal dystrophies and corneal scars, and irregularity, as in Salzmann and keratoconus nodules. These result in poor vision, recurrent erosions, or difficulty in contact lens fitting. The goal of excimer laser phototherapeutic keratectomy (PTK) is to create a clearer and/or smoother corneal surface to improve vision and comfort. PTK is a minimally aggressive, safe, often repeatable procedure with relatively rapid visual recovery. It helps in delaying or eliminating the need for anterior lamellar or penetrating keratoplasty for anterior corneal pathology. This video provides an overview of preoperative evaluation, surgical technique, postoperative management, and outcomes of PTK for various anterior corneal pathologies.

Senior Producer: Jagadesh C. Reddy, MD—meet him in the Learning Lounge (Theater 2) on Monday, 11:15-11:45 a.m.

Coproducer: Christopher J. Rapuano, MD



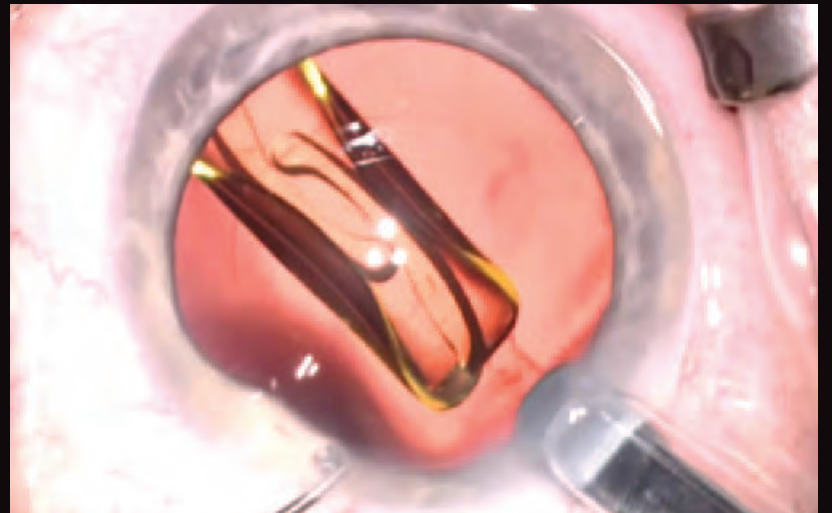
CORNEA

Innovative Surgical Management of End-stage Keratoglobus (V22)

Keratoglobus has always been known as a mysterious condition, but there are several surgical and clinical techniques that can be utilized for its management. This video presents a novel stem cell-sparing surgical approach in a case of profound keratoglobus. The surgeon uses a limbal-conjunctival lamellar dissection followed by sclerocorneal keratoplasty with episcleral overlay.

Senior Producer: Mauricio A. Pérez, MD

Coproducer: Michael E. Snyder, MD



CATARACT

In Search of New Solutions (V05)

When complications from cataract surgery occur, they are generally minor and can be easily treated. The cataract surgeon deals with the occasional patient with a history of preexisting diplopia requiring prisms or strabismus surgery to avoid double vision. This video introduces an innovative intraocular solution aimed at eliminating the diplopia after cataract surgery.

Senior Producer: Robert H. Osher, MD

OCULOPLASTICS

Surgical Correction of High Lid Crease After Asian Blepharoplasty (V42)

Asian blepharoplasty is one of the most popular cosmetic procedures performed in East Asia. Lowering the eyelid crease is challenging and sometimes unsuccessful because of the presence of extensive scarring, adhesions, and distortion of the anatomy from previous surgery. This video introduces a simple surgical technique to lower the eyelid crease involving careful release of all scar adhesions and preaponeurotic fat advancement to prevent re-adhesion. In most cases, a successful outcome is achieved.

Senior Producer: Junghoon Kim, MD

Coproducers: Kyung In Woo, MD, and Yoon-Duck Kim, MD



BACKGROUND ON THE BADGES

At the Meeting, It's All About the Ribbons

BY KIMBERLY DAY, FREELANCE WRITER

Throughout history, there have always been ways to denote rank and prestige. Football players have stickers on their helmets, art collectors display paintings, actors collect awards, and military leaders don medals and ribbons. And ophthalmologists are no different.

BACK IN THE DAY

Anyone who's been to an Annual Meeting knows the sight of attendees with badges colorfully bedecked. The history of those ribbons goes back to the earliest days of the meeting.

Taking a note from our generals and admirals, the Board of the American Academy of Ophthalmology and Otolaryngology (AAOO)—as the Academy was then named—voted back in 1908 to create an “insignia” to identify members and fellows during the Annual Meeting.

Using the logic that members needed some way to be distinguished from students and other attendees, New York ophthalmologist Percy Fridenberg, MD, designed the first logo (see at right) to grace the ribbons of all members at the meeting.

In fact, the Museum of Vision's Academy Archive contains a photograph from the 1911 Annual Meeting, in which members can be seen sporting their ribbons and badges (photo at right.)

The museum has 208 meeting badges and ribbons from meetings all over the world, thanks in large part to William L. Benedict, MD (1885-1969).

Dr. Benedict was the executive secretary-treasurer of the AAOO between 1942 and 1968, a position that is the equivalent to today's CEO role. But Dr. Benedict's service to the Academy extended a good 20 years before that, as he held virtually every volunteer position the Academy had.

Given that the entire Academy staff consisted of just four people when Dr. Benedict took the helm as executive secretary-treasurer, himself included, it's little wonder that he wore so many hats ... and so many ribbons. He has also proved the single largest donor of meeting badges and ribbons to the Academy Archive, including the earliest one from the

1921 meeting.

Back then, the badges were a bit different. They were often reserved for officers of the AAOO, with the president and board wearing blue ribbons, a color that continues to signify Academy leadership. The badges were brass and rather ornate. (See Dr. Benedict's badge below.)

POST-WAR RIBBON EXPLOSION

Following World War II, the Academy began to present ribbons to other leaders in the organization. Militaristic adornment soon became part of the tradition of the Academy and continues to this day.

When former deputy executive vice president (DEVP) David Noonan joined the Academy's staff in 1972, the president, executive vice president (EVP), DEVP, board, and secretariat wore blue ribbons, much like the board back in the 1920s. But by the late '70s, the Academy added ribbons for other service positions. They were seen as a badge of service to the Academy through the '70s and '80s.

“It was an inexpensive, appropriate way to recognize people who gave their time and service to the Academy,” Mr. Noonan said. “They are a huge symbol of prestige and service for the tremendous number of hours the wearers give to their profession.”

Ribbons denote such prestige that, at one time, the badges themselves came with instructions on the back, which directed that the badge be worn on the right lapel so that when the wearer extend

his or her right hand, the right lapel would be thrust forward to ensure name recognition as well as ribbon wonderment and awe.

(Okay, it didn't actually say wonderment and awe, but that was often the intended—and correct—reaction.)

DO YOU HAVE ALL 68?

Today, there are 68 different ribbons for the Annual Meeting. As you can imagine, one of the most difficult things for the meetings division to come up with isn't for whom to provide ribbons, but choosing a color or color combination that isn't already being used!

Fortunately, there is, believe it or not, a convention for con-



1911 Annual Meeting attendees.



vention planners. In addition to peddling their many convention-related services, these gatherings also have ribbon vendors. Yes, there is a whole industry of ribbons. To this day, Mr. Noonan's favorite ribbon is from one of those conventions. It was the “Runs With Scissors” ribbon.

Fantastic as that is, it is not one of the 68. Tradition dictates that the president's, CEO's, and board ribbons are all blue.

The PAC ribbon is red, white, and blue, while the ribbon denoting military service is a veteran ribbon with a flag.

But the most important ribbon at the meeting doesn't belong to a member. It's the staff ribbon. This bright red, shorter ribbon is the one to look for if you need something or need something done. It is immediately recognizable to vendors, members, and convention staff.

In fact, it's so important that the EVP/CEO, and DEVP have found they need to don staff badges as well. “Dunbar [Hoskins, the former EVP] and I found we had to start wearing staff ribbons,” Mr. Noonan said. “If we had to reenter the convention center at 2 a.m. for some reason, we could not do so. Being EVP or DEVP was irrelevant. Only staff had that kind of access.”

SHOW YOUR STYLE AND PRIDE

In addition to the myriad of ribbon types, there are also a number of ways to display them. Of these, two seem to stand out.

The first is sometimes termed the “Russian general style.” Simply attach your ribbons side-by-side, with the second row attached to the first row.

The second, slightly more creative, display is the “deck of cards.” Start with your most important/prestigious ribbon on top. Behind that, place the next two or three most impressive. Continue to stagger in this fashion so the remaining ribbons are attached at the bottom like fringe to show the colors.

No matter how you choose to display your ribbons, just be sure to wear them with pride! And many people do. It's not uncommon for people to don badges and ribbons from the time they pick them up onsite to the plane ride home from the

meeting and all points in between. Just be sure to take them off before bed.

More seriously, do not wear your badge and ribbons on the street in Chicago. While they garner you the appropriate and deserved attention at the meeting, they could make you a target for crime outside of the convention center.

BADGE OF HONOR

Academy ribbons are a lasting symbol of service and dedication to the ophthalmology profession. As such, it's not surprising they can become a bit of treasure to those who wear them—and those who aspire to.

“I generally try to collect as many as possible,” said YO Info editorial board member Lauren Eckstein, MD, PhD. “Getting some of the rarer ribbons reserved for older, more honored, and accomplished members of our society can be a bit of a challenge,” she admitted. “This is mostly accomplished through mere charm, but begging, bartering, and other creative techniques have also been employed from time to time.”

Academy staff members also often collect ribbons and badges, displaying them in their workspaces year after year, meeting after meeting. Many of them have quite an impressive display.

So, here we are, more than a century after that momentous decision to create a badge of honor for those Academy members who give of their time, money, and service to the noble profession of ophthalmology.

To all of you, we salute you and we thank you. And, secretly, we want your ribbons!

This article was written by Kimberly Day, a freelance health writer and frequent contributor to YO Info. This article first appeared in the October 2011 YO Info at www.aao.org/yo/newsletter/201110/article04.cfm. YO Info is the Academy newsletter for young ophthalmologists (YOs)—those in training as well as in their first few years in practice.



OMIC EVENTS

Celebrate OMIC's 25 Years in Business. The Ophthalmic Mutual Insurance Company (OMIC) will host a 25-year anniversary celebration for insureds and prospects. Be sure to stop by any time during the meeting to consult with experts about OMIC's professional liability program and other insurance programs for Academy members. **When:** Sunday, 3-5 p.m. **Where:** OMIC booth (1104). **Access:** Free.

State Society Presidents' Breakfast and Recognition Awards. OMIC is delighted to once again sponsor this event. **When:** Monday, 7-8:30 a.m. **Where:** Crystal Room at the Fairmont Chicago Millennium. **Access:** Invitation only.

OMIC Risk Management Forum: Top Ten Indemnity Payments of 2011. (Spe15). **When:** Sunday, 2-3:30 p.m. **Where:** North Hall B. **Access:** Free.

Why Take the Risk? How to Create an Effective Risk Management Strategy With Patient Education and Informed Consent Documents. (Sym30). **When:** Monday, 12:45-1:45 p.m. **Where:** Room S505ab. **Access:** Free. *This is a combined meeting with OMIC and the Academy Patient Education Committee.*

Medical Ethics in the Hot Seat: How Compliance With the Academy's Code of Ethics Can Turn a Good Litigation Defense into a Great One. (312) **When:** Monday, 9-10 a.m. **Where:** Room S106a. **Access:** Academy Plus course pass required. *This is a combined meeting with OMIC and the Academy Ethics Committee.*

NEW EHR COURSES BROUGHT TO YOU BY AAOE

The American Academy of Ophthalmic Executives (AAOE), the Academy's practice management arm, has developed six new EHR courses for this year's meeting. Consider attending one of the following events:

Anatomy of an EHR Contract: Understanding and Negotiating the Best Terms. (Event code 208). Migration to electronic health records (EHR) means entering into a long-term business relationship with an EHR vendor. The legal document intended to govern that relationship, however, is typically long, highly technical, and drafted with the vendor's interests in mind. It is therefore crucial that physicians and their administrators be able to understand EHR contract language and negotiate the best possible terms. **When:** Sunday, 2-3 p.m. **Where:** Room S502a. **Access:** Academy Plus course pass required.

Electronic Health Records Implementation: Overcoming Resistance to Change. (213). Several barriers to the adoption of EHRs exist. The resistance to change from those who will use the EHR system is one obstacle facing ophthalmic practices during transition periods. In addition, the opposition often arises from those with various perspectives and roles. In reviewing the process of change and recognizing the factors that contribute to resistance, leaders can develop tools to manage and minimize this potential barrier. This course will review how personnel from various generations may respond to change, and how their technological preferences may contribute to your successful transition. **When:** Sunday, 2-3 p.m. **Where:** Room S504bc. **Access:** Academy Plus course pass required.

EHR and Medical Professional Liability Risk. (260). The transition to EHR exposes ophthalmology practices to more medical professional liability (MPL) risks due to a number of product, implementation, and usage issues. Providers must be aware of the MPL risk issues associated with the use of EHRs, as well as be prepared to develop and use risk mitigation strategies, including the following: 1) discuss the role of selection, implementation, and use on MPL risk, 2) examine EHR design issues that create or control risk, 3) review controllable risk issues and mitigation strategies, and 4) present strategies to influence EHR use and mitigate MPL risk. **When:** Sunday, 4:30-5:30 p.m. **Where:** Room S504a. **Access:** Academy Plus course pass required.

Electronic Health Record Search and Negotiation: Keys to Finding the Right EHR for the Right Price With the Right Terms. (406). This course will present critical guidance for physicians and administrators in the search and negotiation phases of the EHR adoption process. Topics will include what makes the right fit between a practice, an EHR, and a vendor. **When:** Monday, 3:15-4:15 p.m. **Where:** Room S502b. **Access:** Academy Plus course pass required.

How to Avoid an EHR Failure. (442). Depending on the qualifications of the vendor and the methods of implementing the system, an EHR system can have both positive and negative impacts on the operations of a practice. Some practices find it extremely difficult to implement change; others just have buyer's remorse and regret their decision to purchase an EHR system. It can also be difficult to adjust to an EHR when the system does not meet the unique needs and requirements of an ophthalmology practice. This session will address vital topics such as the most common reasons to seek a replacement system; taking ownership of the problem without placing fault; assessing the process or product; cost, reselection, data migration, and process design / optimization; and the cost of indecision. **When:** Monday, 4:30-5:30 p.m. **Where:** Room S504a. **Access:** Academy Plus course pass required.

Implementing Electronic Health Records Into an Ambulatory Surgery Center. (507). The evolution of the EHR continues to move forward, and the adoption of EHR in an ambulatory surgery center (ASC) is an opportunity for improvement for those looking to capitalize on the quality and efficiency gained with electronic documentation. Despite unique challenges, many ASCs have successfully implemented EHRs. This course will present firsthand case studies from the perspective of an ophthalmic surgeon, a registered nurse, and practice administrators who use different EHR systems. **When:** Tuesday, 9-10 a.m. **Where:** Room S501b. **Access:** Academy Plus course pass required.

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¹ Lemp MA, et al. Distribution of aqueous deficient and evaporative dry eye in a clinic-based population. *Cornea*. 2012 May;31(5):472-8

² Lane SS, et al. A New System, the LipiFlow, for the treatment of Meibomian Gland Dysfunction (MGD). *Cornea*. 2012;31:396-404

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THE 2011 CATARACT SPOTLIGHT SESSION: PART TWO

Poll Results and Expert Discussion of **Cataract Mishaps**

The Friday/Saturday *Academy News* carried the first half of this recap of last year's video case-based Cataract Spotlight Session "M&M Rounds: Learning From My Mistakes." Below, the second half of the story provides more audience poll results, along with the presenter's description of the case and a second comment from another expert. (This is an abridged version, reprinted from the February 2012 *EyeNet Magazine*.) Be sure to attend this year's Spotlight on Cataracts Session, "Clinical Decision-Making With Cataract Complications," on Monday, 8:15 a.m. to 12:15 p.m., in North Hall B. Admission is free.

CASE 8: WEAK ZONULES: TAKING A RIDE ON THE GRAVITRON

In Bonnie Henderson's patient with very weak zonules, the capsular bag and lens appear to be descending during phaco.

With the capsular bag seeming to drop more posteriorly, what would you do?

- Continue to phaco carefully . . . 19%
- Insert capsule retractors and continue phaco40%
- Insert a CTR and continue phaco . .10%
- Insert capsule retractors and a CTR and continue phaco23%
- Convert to a manual ECCE. . . . 8%

CASE PRESENTER BONNIE HENDERSON This 68-year-old woman had no preoperative signs of or risk factors for weak zonules. The procedure began with routine phacoemulsification with no obvious signs of zonular weakness during the capsulorhexis or hydrodissection. During lens removal, however, attempts at chopping the lens were futile because of the posterior displacement of the lens. When it became apparent that the difficulty was due to weak zonules, capsule hooks were placed to bolster capsular support, and lens removal was successful. Before the epinucleus and cortex were removed, a modified CTR was placed for additional support. A three-piece IOL was implanted in the bag with the haptics positioned against the areas of zonular weakness.

Zonular dialysis is often associated with a horizontal displacement of the lens and prolapse of vitreous from behind the area of zonular loss. However, zonular weakness can be more subtle. Struggling to place a chopper and to cut the lens can be signs that zonular weakness is causing posterior displacement of the lens diaphragm. When confronted with this situation, it's important to lower the fluidic parameters and inject viscoelastics before exiting the anterior chamber in order to maintain a stable chamber depth.

GARRY CONDON'S PERSPECTIVE In this rather unexpected scenario in which there appeared to be long and lax zonular support, the entire lens/capsular bag complex descended posteriorly when an infusion was started. An attempt to phaco the lens immediately revealed the loose zonules' lack of support. The inadequate support allowed the lens and bag to continually "roll" away from the phaco tip when any pressure was applied to the lens. The

first question to be answered was how we could be confident that there were, in fact, intact zonules in light of this most disconcerting lens behavior. In the absence of preexisting zonulopathy, these cases typically do not demonstrate any unusual preoperative slit-lamp findings that would alert us to this intraoperative challenge. One paradoxical slit-lamp/biometric finding that I have learned to appreciate, however, is an eye with an unusually shallow anterior chamber that has a normal axial length.

Recognizing that there is no coexisting PXF and that the lens rebounds to a central and anterior position upon returning to foot position zero are essential to feeling confident that one can continue once zonular support is augmented with a device. The necessary counterpressure against the phaco tip can be safely and effectively supplied with disposable capsular support devices that not only grasp the edge of the rhexis but also extend support out to the lens equator. I would recommend either the Mackool hooks or the new capsule retractors by MST. I would not be inclined to implant a CTR prior to lens removal unless zonular loss was evident at the outset. Using only the retractors would likely solve the support problem with the lax zonules and avoid the risk of damaging the bag and zonules unnecessarily by attempting to implant a ring. Once the lens is removed, implanting a CTR while the bag is fully inflated with viscoelastic and still supported with retractors is certainly reasonable, as the bag in these cases is extremely redundant and floppy. Loose but intact zonules usually do not require conversion to ECCE as long as the challenge is recognized and support is available.

CASE 9: FRUGALITY LEADS TO FRUSTRATION: A NEEDLESS CAPSULAR RUPTURE

In Skip Nichamin's case, the posterior capsule was torn during IOL implantation.

What is your preferred (most common) incision for performing an anterior vitrectomy?

- Use the phaco incision56%
- Create a new limbal incision23%
- Perform pars plana sclerotomy. . .10%
- Place pars plana or limbal incisions, depending on the case.11%

CASE PRESENTER SKIP NICHAMIN In this case, the posterior capsule was torn as a three-piece silicone IOL was being dialed into the capsular bag. The mishap occurred because of inadequate OVD inflation. Two issues led to this error: First, our surgical center had recently switched from a 0.8-mL OVD syringe to a 0.5-mL OVD syringe at the juncture of the case. Second, my attention had temporarily waned, and I did not notice the shallow state of the capsular fill.

This case offers two important take-away lessons. First, ongoing attempts to reduce costs can indeed have a direct and negative effect upon our clinical outcomes; and, second, a state of vigilant attention is essential, even during a routine case that is seemingly progressing in an expected manner. Fortunately, closed chamber maneuvers and performance of a proper (pars plana approach) anterior vitrectomy resulted in a very good visual and anatomic result for this patient.

NICK MAMALIS' PERSPECTIVE This case demonstrates the rare instance in which posterior capsular rupture occurs during IOL insertion. In this instance, the lens capsule was not adequately opened with OVD, allowing the IOL to catch on the capsule and cause a capsular bag rupture. Once such a rupture has occurred, and if any vitreous has entered the anterior chamber, it is important to remove all the vitreous via a vitrectomy in a closed system within the anterior chamber if possible. The preferred incision for performing an anterior vitrectomy depends upon the surgeon's experience and preferences. One advantage of performing the vitrectomy through the pars plana is that the vitreous is drawn posteriorly to its normal anatomic position. This may decrease traction on the retina and help limit the amount of vitreous that is pulled into the anterior chamber using an anterior approach. However, this involves a pars plana incision and requires that the surgeon be comfortable with and well versed in working from the pars plana.

Regardless of which incision is chosen, the irrigation must be split from the vitrectomy probe so as not to hydrate the vitreous and push it away from the vitrectomy probe. A second stab incision can be made at the limbus in the clear cornea to insert the irrigation port. The vitrectomy probe must be placed through an incision that seals around the port and does not allow leakage around the vitrector, shallowing the anterior chamber. If this cannot be achieved through the phacoemulsification incision, a second clear corneal incision can be made and the vitrectomy probe inserted away from the phacoemulsification incision.

It is important to use as high a cutting rate as possible for the vitrectomy probe. The rate of aspiration depends on the de-

gree of irrigation as well as on the cutting speed. The bottle height is usually set low by the default setting on the phacoemulsification machine, but it should be raised as the vitrectomy progresses or if hypotony begins to develop. Preservative-free triamcinolone may be injected into the anterior chamber through the paracentesis to help visualize any remaining strands of vitreous. With triamcinolone, the vitreous will stain with small white particles in a sheetlike pattern. Excess triamcinolone can then be washed out with balanced salt solution. Any remaining strands of vitreous can be identified and removed from the anterior chamber along with the triamcinolone. With meticulous technique, vitreous can be safely removed after a posterior capsular tear, allowing a successful outcome to the case.

CASE 10: VITREOUS LOST AND VITREOUS FOUND

In Eric Donnenfeld's case, an anterior capsular tear extends into the posterior capsule during surgery. Later, the PC IOL is placed into the ciliary sulcus.

After noticing a posterior extension of the radial anterior capsular tear, I would:

- Carefully continue phaco55%
- Perform an anterior vitrectomy to clear any prolapsing vitreous prior to resuming phaco30%
- Continue phaco over a Sheets glide13%
- Convert to a manual ECCE. . . . 3%

CASE PRESENTER ERIC DONNENFELD Radial anterior tears are moderately common and become more significant when they extend posteriorly because of the increased risk of vitreous loss. When a posterior tear of the capsule is noted, the surgeon should immediately stop the procedure but leave the phaco tip in the eye with enough infusion of balanced salt solution to maintain the anterior chamber. Removing the phaco tip typically causes the anterior chamber to flatten, pulling vitreous forward. The second instrument should be removed and a dispersive viscoelastic placed in the area of the posterior capsular tear to segment the exposed vitreous face and protect against progression of the capsular tear. Reduce the flow and vacuum and carefully remove the remaining nucleus and cortex by working as far away from the capsular tear as possible. Dispersive viscoelastic can be replaced as needed.

WARREN HILL'S PERSPECTIVE See answer under next question.

After initially placing a three-piece PC IOL into the sulcus, I would:

- Leave it as is71%

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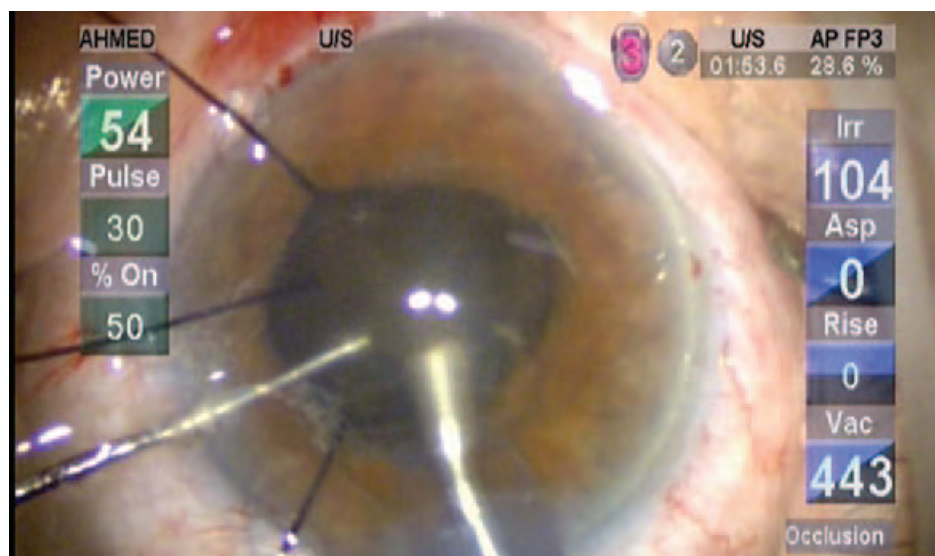
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CASE 12. Vitreous prolapse with asteroid hyalosis present to the superior side port (left side of image). OVD has been used to partition the vitreous from the central anterior chamber and phaco tip, and iris hooks have been placed for support.

Capture the optic with the remaining anterior capsule 23%
Rotate the IOL into the capsular bag 4%
Iris suture fixate the haptics 3%

CASE PRESENTER ERIC DONNENFELD The audience got this one completely correct. Leave the three-piece PC IOL in the sulcus and rotate the haptics away from the area of the posterior capsular tear. With a small, localized posterior tear, the lens could be placed in the capsular bag; but in this case, the tear was too extensive to consider this option.

Most important, do not capture the optic behind the anterior capsule unless the capsulorrhexis is intact. Pressing on the IOL will compress the vitreous face, causing vitreous to prolapse into the anterior chamber.

WARREN HILL'S PERSPECTIVE I agree that phacoemulsification can be carefully continued in the presence of a posterior extension of a radial anterior capsular tear. Such an occurrence does not need to result in vitreous prolapse; but the surgeon must be mindful of what may follow if attention to detail is lost. Isolation of the area with viscoelastic and reduced fluid flow and aspiration go a long way in preventing an anterior tear from extending posteriorly, or a posterior extension from enlarging.

If only the capsule is involved, viscoelastic can be used effectively to isolate the vitreous face, thereby reducing the risk of prolapse into the anterior chamber. A sulcus-placed three-piece IOL would follow, preferably one with a large haptic diameter and a large optic. If vitreous prolapse does occur, a 1:4 dilution of nonpreserved triamcinolone is often used for identification of vitreous and to aid in its removal. A small amount of Triesence should also remain in the eye to minimize postoperative inflammation. In this case, attempting optic capture in the presence of a capsular tear was nothing less than asking for trouble ... and trouble was found.

CASE 11: "FLOPPY BAG" SYNDROME: I LEFT WHAT, WHERE?

In Sam Masket's case, zonular weakness was evident during surgery. Postoperatively, recurrent iridocyclitis and inflammation are present.

What is your differential diagnosis?

Infectious endophthalmitis 7%
Retained nuclear chip. 48%
Both 34%
Neither 11%

CASE PRESENTER SAM MASKET This case offers several points for learning. The "floppy bag," induced by generalized weakness of the zonules, is among the risk factors for retained nuclear remnants. Others include dense cataracts, small pupils, and intraoperative floppy iris syndrome. In this case, the weakened zonules required use of a CTR; but despite its use, vitreous prolapsed around the lens into the main and side-port incisions, requiring anterior vitrectomy. To my thinking, the nuclear remnant became trapped in vitreous under the iris, allowing it to "hide" at the close of surgery.

Sizable nuclear "chips" in the posterior chamber or anterior vitreous will induce inflammation that often develops after topical NSAIDs and corticosteroids have been discontinued, as noted in this case. The nuclear fragment was tolerated for several months, as long as anti-inflammatory medications were employed. When these were discontinued, the inflammation reappeared. However, despite topical medications, by four months after surgery the eye had become "hot." Fortunately, the nuclear remnant was visualized. After its removal, the inflammation subsided and the eye attained clinically normal postoperative status. Had I not actually seen the "tip of the iceberg" of the nuclear piece in the inferior posterior chamber, anterior segment ultrasound biomicroscopy would have been indicated and likely helpful. Fortunately, neither cystoid macular edema nor significant elevation of IOP occurred, although these are fre-

quent complications of retained nuclear fragments. Nuclear chips in the anterior chamber are often associated with corneal decompensation, not present herein.

The pattern of repeated bouts of inflammation after seemingly uneventful cataract surgery might also represent low-grade endophthalmitis. Although keratic precipitates and vitritis might be more evident in that scenario, absent the eventually obvious nuclear remnant in this case, ocular fluid samples (anterior chamber and vitreous) should have been obtained for culture and sensitivity testing, followed by administration of intraocular antibiotics.

Corrective surgery in this case was aided by the use of iris retractors, non-preserved triamcinolone and anterior vitrectomy. In dealing with cases of "floppy bag" syndrome, surgeons should be particularly vigilant in looking for nuclear remnants at the close of surgery.

ROSA BRAGA-MELE'S PERSPECTIVE Given the scenario, my first inclination is that a retained nuclear fragment is causing the inflammation. However, one must keep the possibility of endophthalmitis on the back burner. At this point, I would begin a course of aggressive topical steroid treatment and look for a nuclear fragment, either by gonioscopy or by performing anterior segment optical coherence tomography or ultrasound biomicroscopy. I would revisit the situation in 24 hours and, if a nuclear chip is suspected, take the patient back to the operating room for chip removal. If no nuclear chip is evident, the inflammation must be considered evidence of potential endophthalmitis and treated in conjunction with one of our retina colleagues.

CASE 12: VITREOUS PROLAPSE—GET OUT OF A STICKY SITUATION

In Ike Ahmed's case, with a zonular dialysis, vitreous has prolapsed into the anterior chamber during phaco.

With a loose capsular bag and vitreous prolapse into the anterior chamber, what would you do?

Convert to a manual ECCE. 35%
Perform an anterior vitrectomy, implant a CTR in the bag and continue phaco 13%
Perform an anterior vitrectomy, insert capsule retractors and continue phaco 21%
Viscopartition the vitreous and continue phaco 9%
Viscopartition the vitreous, insert capsule retractors and continue phaco . . 22%

CASE PRESENTER IKE AHMED This 85-year-old patient had a dense black cataract and small pupil. After the first crack of the nucleus, it was evident that vitreous (with asteroid hyalosis) had prolapsed around the lens superiorly and toward the side-port incision. Of course, no one likes vitreous in the anterior chamber, but removing it could have caused further loss

of support for the lens; coincidentally, the vitreous that had already prolapsed forward was diverted to the side port, away from the phaco tip.

Removing prolapsed vitreous acutely will not reduce existing vitreoretinal traction, but the vitreous should be removed to prevent additional traction. Fortunately, in this case, the vitreous prolapse stabilized when it was diverted to the side port. With the vitreous out of the way, it was unlikely to be engaged and cause further traction.

In fact, performing an anterior vitrectomy through a limbal incision probably would have caused more vitreous to move forward. Furthermore, viscopartition sequestered the area of prolapse, enabling manipulations to be made in the anterior chamber, away from the side port, without engaging vitreous.

Finally, three iris hooks were placed along the edge of the capsulorrhexis to support the capsular bag. The dense lens was successfully removed without engaging vitreous or capsule.

At this point, removing the bag and placing an AC IOL appeared to be the best option. Micro-graspers were used to pull out the capsular bag in its entirety, while viscoelastic was used to keep the area of vitreous away from the site. Although it can be argued that pulling on zonules might cause an inadvertent retinal tear, minimal zonules were present. Those that were present were so loose that no tension was required to pull out the bag.

The vitreous prolapse was swept back behind the pupil; and, as asteroid hyalosis was present, this helped to visualize and ensure that all vitreous was repositioned. Under OVD stabilization of the anterior chamber, an AC IOL was placed; a small peripheral iridectomy was made; and all wounds were sutured. It is easy to say, "Just do a vitrectomy," but in the larger context, managing with viscopartition and sequestering of vitreous permitted the safe removal of lens material.

Converting to manual ECCE would be more traumatic and would result in greater vitreous loss. As long as the vitreous is kept isolated, with sufficient use of dispersive OVD to viscopartition the anterior chamber, and iris hooks are used to support the capsular bag, the dense nucleus can be phacoemulsified. A CTR was not used in this case because placement of an in-the-bag PC IOL was believed to be unlikely considering the degree of zonulysis, and suturing a capsular tension device was even less likely because an AC IOL would be tolerated in this patient.

JENNIFER LIM'S PERSPECTIVE First of all, it is important to remove the vitreous from the wound margins and the anterior segment before attempting any further phacoemulsification of the lens. Vitreous traction on the retina must be relieved in order to reduce the risk of causing a retinal break or subsequent retinal tear, detachment and postoperative cystoid macular edema. Attempts to viscopartition the vitreous are fraught with an



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Saturday, Nov. 10

9:30 AM

Blepharitis: The New Consensus

Stephen V. Scoper, MD

11:00 AM

The LenSx® Laser: Sphere and Cylinder Are Not Enough

Paul Ernest, MD

11:30 AM

Alcon Advances for Today's LASIK Surgery

Sonny Goel, MD
Charles Moore, MD

12:00 PM

IOL Injection You've Always Wanted. Simple, Elegant, Automated. Introducing the AutoSert® IOL Injector

Robert Osher, MD

12:30 PM

Advanced Optical Biometry: Using the LENSTAR LS 900®* Optical Biometer with Toric IOLs, Strategies for Success

Warren Hill, MD

1:00 PM

Methods to Manage Pre-Existing Corneal Astigmatism with Toric IOLs

Edward J. Holland, MD
Samuel Masket, MD

1:30 PM

Rethinking the Role of IOP in the Diagnosis and Management of Open-angle Glaucoma

Matthew McMenemy, MD

2:00 PM

The LenSx® Laser: A New Cataract Procedure

Stephen Lane, MD
Satish Modi, MD
Dan Tran, MD

3:00 PM

Multifocal IOLs: Setting Expectations for Presbyopic Patients

Randy Epstein, MD
Cathleen McCabe, MD

3:30 PM

Clinical Pearls to Adopting the EX-PRESS® GFD

Steve Vold, MD

Sunday, Nov. 11

11:00 AM

Maximizing Success with the EX-PRESS® Glaucoma Filtration Device

Ike Ahmed, MD

12:30 PM

Multifocal IOLs: Setting Expectations for Presbyopic Patients

William J. Lahners, MD
Andrew Maxwell, MD

1:00 PM

Alcon Advances for Today's LASIK Surgery

Vance Thompson, MD

1:30 PM

Integrating the LenSx® Laser into Our Practice

Michael P. Jones, MD
Christa Garner, BA, CRC

3:00 PM

Methods to Manage Pre-Existing Corneal Astigmatism with Toric IOLs

Gary Foster, MD
Ehsan Sadri, MD

3:30 PM

Blepharitis: The New Consensus

Stephen V. Scoper, MD

Monday, Nov. 12

10:00 AM

The LenSx® Laser: A New Cataract Procedure

Jerry Hu, MD
Robert Lehmann, MD

12:30 PM

Alcon Advances for Today's LASIK Surgery

Joseph L. Parisi, MD

1:30 PM

My Experience with the EX-PRESS® Glaucoma Filtration Device

Jeff Goldberg, MD

2:00 PM

Optically Measured Lens Thickness in IOL Power Calculation

Sheridan Lam, MD

2:30 PM

Transitioning to Femtosecond Cataract Surgery

Gerard Sutton, MD

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increased risk of retinal tears because this maneuver exerts tractional forces on the vitreous base. If significant vitreous prolapse has occurred, and the lens is now located in the posterior segment, I would involve the retina surgeon early in the management of this patient. Ideally, a retina surgeon could perform a pars plana vitrectomy at the same surgery or on the same day. If the vitreous can be removed with anterior vitrectomy and the anterior bag is able to support an IOL, I recommend inserting an IOL. Any lens fragments in the posterior segment pose too great a risk of causing retinal tears or choroidal detachments if attempts are made to remove the lens fragments anteriorly. Even if lens fragments were not found posteriorly and an anterior vitrectomy was successfully performed, the patient should be referred to a retina specialist for postoperative evaluation.

With the zonular dialysis, where would you place an IOL in this patient?

Implant an anterior chamber IOL . . .76%
Place a posterior chamber IOL in the bag following a CTR 2%
Place a posterior chamber IOL in the bag along with a sutured Cionni ring or capsular tension segment . .1%
Place a posterior chamber IOL in the ciliary sulcus9%
Scleral suture a sulcus posterior chamber IOL12%

CASE PRESENTER IKE AHMED In an 85-year-old with no history of glaucoma and an average-sized eye, an AC IOL may be the simplest approach. It has the lowest intraoperative risk and should be well tolerated. If the patient were younger than 65, an iris- or scleral-fixated PC IOL could have been considered.

ROSA BRAGA-MELE'S PERSPECTIVE When evaluating the placement of an IOL, one needs to look at the patient's age and health status and at the status of the capsular bag. In this case, the patient was elderly, and the capsular bag had been completely removed. As a result, I agree with the audience, and I would implant an AC IOL through the smallest incision possible. If the patient had been younger, I probably would have sutured a sulcus posterior chamber IOL either to the iris or to the sclera. If there had been some capsular support, suturing a CTR or CTS also would have been a viable solution.

CASE 13: IT'S GOING, GOING, GONE ... OR MAYBE NOT?

Terry Kim's patient had previously undergone a pars plana vitrectomy. During phaco, the posterior capsule ruptured and the nucleus dropped posteriorly.

The lens has dropped posteriorly. Now what?

Call a retina specialist into the OR18%
Attempt a PAL maneuver to elevate

the nucleus21%
Abandon the dropped material, implant an IOL and observe the patient40%
Same as previous response, but promptly refer to a retina specialist postoperatively16%
Abort surgery (no IOL) and promptly refer to a retina specialist postoperatively 5%

CASE PRESENTER TERRY KIM In this diabetic patient who had previously undergone pars plana vitrectomy, a white, mature cortical cataract formed quite rapidly and required cataract surgery. After staining the anterior capsule with trypan blue, I performed a continuous curvilinear capsulorrhexis (CCC) without incident. However, after hydrodissection and initiation of irrigation with the phaco tip, the posterior capsule suddenly ruptured, with subsequent loss of the nucleus into the posterior segment.

A retina specialist was called into the OR for anticipated pars plana lensectomy. In an effort to help clear the view for the retina specialist before his arrival, the I&A tip was used to remove the cortical material. After most of the cortex was cleared, fragments of the dropped nucleus were observed floating anteriorly toward the I&A tip because of the I&A flow currents. At this point, with the consent of the retina specialist, a phaco tip was inserted through the posterior capsular opening to remove these nuclear fragments. Again, the I&A flow currents from the phaco tip helped tumble the nuclear fragments anteriorly for uneventful phacoemulsification in the posterior segment. Afterward, a three-piece acrylic IOL was implanted in the ciliary sulcus with anterior capsular capture of the optic. A dilated fundus examination at the conclusion of the procedure confirmed complete removal of all nuclear and cortical lens material and no retinal damage.

Every cataract surgeon should know that when a posterior capsular rupture results in posterior descent of the nucleus, a pars plana vitrectomy/pars plana lensectomy with a vitrectomy cutter/fragmentome is typically performed to avoid vitreous incarceration by the phaco tip and potential retinal damage. Alternatively, a PAL technique can be used through a pars plana incision with a spatula and/or dispersive viscoelastic to deliver the dropping nucleus into the anterior chamber for eventual phacoemulsification. However, this case illustrates that lens/cortex removal can be performed successfully with a phaco tip in the posterior segment as long as no vitreous is present or encountered. Subsequent sulcus IOL implantation can result in an excellent surgical outcome without requiring any pars plana procedures.

TIM OLSEN'S PERSPECTIVE This diabetic patient had previously undergone vitrectomy, presumably for proliferative diabetic retinopathy, and was left phakic. A cataract ensued. During the anterior

segment approach, capsular incompetence became evident and may have been related to the prior vitrectomy. Some diabetics will require an aggressive anterior vitreous base dissection that addresses peripheral vitreoretinal pathology. Such a procedure may lead to zonular and/or capsular weakening. From a posterior segment surgeon's point of view, addressing anterior proliferation aggressively is a sign of an appropriately thorough vitrectomy, even if it means more rapid cataract progression. Failure to address this anterior vitreous base area may lead to recurrent vitreous hemorrhages.

A key point is that Dr. Kim had a posterior segment colleague assess the case before he inserted the phaco tip into the posterior segment. If called into the OR under similar circumstances, I would carefully assess the eye for remaining vitreous and ensure that the infusion was adequately maintaining the intraocular pressure during the procedure. The technique described by Dr. Kim is very similar to the fluid dynamics that we employ in the posterior segment, using a fragmentome along with a pars plana infusion. Many times, especially with a complete vitrectomy, the crystalline lens will float on the fluid currents inside the eye and become impaled on the tip of the ultra-

sonic device. With adequate aspiration, the lens can be fragmented and removed.

When Dr. Kim's technique is performed from the anterior segment, the surgeon should be alert to several potential complications: 1) vitreous may become incarcerated in the phaco tip, especially with a sub-complete vitrectomy; 2) some fragmented nuclear particles may remain behind, adhere to the retinal surface, and lead to postoperative inflammation and cystoid macular edema; 3) overuse of the high-flow infusion could lead to large retinal breaks or even giant retinal tears; and 4) visualizing the peripheral vitreous base region is difficult with the anterior segment approach.

The successful outcome in this case was under the supervision of a retina specialist, who was prepared to manage a peripheral retinal break, tear or even a giant retinal tear. One should be fully aware that these serious complications could arise during a case like this one. Finally, in an eye that had only had a core or a more limited posterior vitrectomy, the risk would be much higher. In these instances, the procedure described by Dr. Kim should be avoided because the remaining peripheral vitreous skirt would certainly be engaged in the phaco tip, leading to significant retinal morbidity.

FINANCIAL DISCLOSURES

Financial interests are designated by C, E, L, O, P or S:

C = CONSULTANT/ADVISOR

E = EMPLOYEE

L = LECTURE FEES

O = EQUITY OWNER

P = PATENTS/ROYALTY

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