33rd Annual Scientific Meeting
Gwen Hotel • Chicago, Illinois

September 13-15, 2019

Program Chairs

Howard Palle, MBChB, FCA
Bascom Palmer Eye Institute
OAS President

Zhuang Fang, MD, MPH
Ronald Reagan UCLA Medical Center
OAS President-Elect

Chris Bender, CRNA
Vance Thompson Vision
OAS Treasurer

Scientific Program
The scientific program is also available at eyeanesthesia.org/2019program
GENERAL INFORMATION
The purpose of the OAS annual scientific meeting is to educate OAS members as well as other interested healthcare professionals and share information that will enable them to provide the highest level of anesthesia service during ophthalmic surgery. This meeting is of interest to anesthesiologists, ophthalmologists, CRNAs and other ophthalmic medical professionals.

At the conclusion of the conference, attendees will be able to:
1. Identify the latest anesthesia techniques for ophthalmic surgery.
2. Review pertinent historical and anatomical information related to ophthalmic surgery.
3. Evaluate different anesthesia techniques to determine which might warrant a change in current practice.
4. Generate an increased or sustained interest in developing knowledge, acquiring skills and continuing education in the area of ophthalmic anesthesia.

ACCREDITATION INFORMATION
Physicians
This activity has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint sponsorship of the University of Alabama School of Medicine (UASOM) and the Ophthalmic Anesthesia Society. The UASOM is accredited by the ACCME to provide continuing medical education for physicians.

The University of Alabama School of Medicine designates this live activity for a maximum of 13 AMA PRA Category 1 Credit(s)™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Certified Registered Nurse Anesthetists (CRNAs)
This program has been prior approved by the American Association of Nurse Anesthetists. See the registration desk for additional information.

WIRELESS ACCESS
Complimentary wireless is available throughout the scientific meeting.
Password: OAS2019

FACULTY DISCLOSURE
In accordance with the Standards for Commercial Support issued by the Accreditation Council for Continuing Medical Education (ACCME), the University of Alabama School of Medicine requires resolution of all faculty conflict of interest to ensure CME activities are free of commercial bias.

The following faculty members have indicated that they do not have anything to disclose that, in the context of their presentations, could be perceived as a potential conflict of interest:

John Berdahl, MD
Gary Cass, MD
Elethia Dean, RN, PhD
George Dumas, MD
Zhuang Fang, MD, MPH
John Hitchens, CRNA
Chandra Kumar, MB BS
Robert Langston, CRNA

The following faculty members have disclosed a financial interest/arrangement or affiliation with a commercial company who has provided product or services relating to their presentations or commercial support for this continuing medical education activity. All conflicts of interest have been resolved in accordance with the ACCME Updated Standards for Commercial Support.

Chris Bender, CRNA – Consulting fees, support for travel, royalties: Melt/Imprimis Pharmaceuticals
Jefferson Doyle, MD, PhD, MHS, MA (Oxon) – Consulting fees: RRV, Maze Therapeutics; Support for travel: Johns Hopkins Hospital
Thomas Eke, MA (Cantab), MD, FRCOphth – Honorarium: Thea Pharmaceuticals
Maggie Jeffries, MD – Grants, consulting fees, support for travel: Melt/Imprimis Pharmaceuticals

GRANT ACKNOWLEDGEMENT
The University of Alabama School of Medicine and the Ophthalmic Anesthesia Society acknowledge educational grants for the support of this activity from Edge Pharmacy Services and Halozyme.
FRIDAY, SEPTEMBER 13

9:00-11:30 am  Impressionist Boardroom, 8th Floor
OAS Board of Directors Meeting (invitation only)

9:00 am-5:00 pm  6th Floor Foyer
Registration Open

11:45 am-4:30 pm  Gallery Ballroom, 6th Floor
General Sessions

11:45 am-12:00 pm
Welcome & Opening Remarks
Howard Palte, MBChB, Bascom Palmer Eye Institute

12:00-12:30 pm
Glaucoma: A Two Pressure Disease Versus Only InCREASED INTRAOCULAR PRESSURE?
John Berdahl, MD, Vance Thompson Vision
To define the pressure measured with using transcorneal pressure modalities like Goldmann. To introduce intracranial pressure (ICP) basics including normal ranges, age changes, and nocturnal changes. Teach the connection of IOP and ICP and the anatomical effects on the optic nerve.

12:30-1:00 pm
Pediatric & Adult Eye Trauma: Management Considerations
Jeff Doyle, MD, PhD, MHS, MA (Oxon), Wilmer Eye Institute
Discuss the breadth of pediatric and adult eye trauma. Review a series of cases to illustrate teaching points. Identify specific challenges that occur in pediatric and adult populations.

1:00-1:30 pm
Mission Trips to Tanzania
Robert Langston, CRNA, John Moran Eye Center
Understand opportunities available for work in Global Outreach. Learn the unique culture of Tanzania. Understand challenges inherent to working in third world environments. Understand the stresses and benefits of working in a team environment. Commit to providing outreach efforts in your local areas.

1:30-2:00 pm
Anesthesia Management in Neonates and Preemies
Sujantha Ravichandran, DA, DNB, Sankara Nethralaya
Appreciate the advantage of inhalational induction, tral laryngoscopy/intubation prior to administration of muscle relaxants and successful on table extubation of preemies.

2:00-2:15 pm  6th Floor Foyer
Coffee Break

2:15-2:45 pm
High Flow Nasal Oxygen Therapy: Principles and Application in Ophthalmic Anesthesia
Steven Gayer, MD, MBA, University of Miami
Review the principles of high-flow nasal oxygen. Discuss current applications of high-flow nasal oxygen in anesthesia. Explore potential uses of this modality for ophthalmic anesthesia settings.

2:45-3:30 pm
Patient Positioning in Eye Surgery
Tom Eke, MA (Cantab), MD, FRCophth, Norfolk and Norwich University Hospitals
Make simple changes that allow most patients to position more comfortably for eye surgery. Be able to work with experienced surgeons to do (nearly all of) those ‘impossible to position’ cases. Know the basics of how to do sub-Tenon anesthesia.

3:30-4:00 pm
The Practice of Mock Code in the Free-Stand Ophthalmic Surgical Center
Alan Zamora, CRNA, University of California-Los Angeles & Zhuang Fang, MD, MSPH, University of California-Los Angeles
Discuss structure for code response in Ambulatory Surgical Center. Discuss development of action plan based on evaluation of mock code drills. Identify resources available and roles of staff.

4:00-4:30 pm
Open Source Anesthesia Electronic Medical Record
John Hitchens, CRNA, Open Source Anesthesia Electronic Medical Record
Discover an alternate means to document their anesthesia care besides paper documentation. Be able collect data and submit the data to regulatory agencies as well as billing services using OSAEMR. Learn to generate reports in order to reduce time committed to administrative tasks.

POSTER PREVIEWS 6th Floor Foyer

4:30-5:00 pm
Regional Anesthesia for Prophylaxis of Cognitive Disorders in School-Age Children in Ophthalmosurgery
Sergei Bersenev, MD

Communicating Anxiety-Reduction Techniques to Patients Prior to Eye Surgery
Michael Borkoski

Allergic Reaction to Hyaluronidase After Peribulbar Block - Hard to Diagnose - Is It?
Manonmani Balachandarm, MBBS DA

5:00-7:00 pm
Poster & Exhibitor Reception
Presentation of Poster Award
SATURDAY, SEPTEMBER 14

8:00 am-5:00 pm 6th Floor Foyer
Registration Open

8:00-8:30 am 6th Floor Foyer
Continental Breakfast

8:30 am-2:45 pm Gallery Ballroom, 6th Floor
General Sessions

8:30-8:35 am Preliminary Remarks & Welcome
Howard Palte, MBChB, Bascom Palmer Eye Institute

8:35-9:00 am Sub-Tenon Block: A Model for Care in Eye Surgery
Tom Eke, MA (Cantab), MD, FRCOphth, Norfolk and Norwich University Hospitals
Know the basics of how to do sub-tenon anesthesia. Appreciate how and why sub-tenon anesthesia minimizes the risk of sight-threatening or life-threatening complications. Be ready to change to sub-tenon anesthesia for safer surgery.

9:00-9:30 am Congenital Eye Diseases and Surgery in Pediatric Patients
Simon Fung, MD, MA, FRCOphth, University of California-Los Angeles
Understand some of the more common congenital eye conditions in children. Realize the important roles anesthesiology has on the success in pediatric anterior eye surgery. Recognize the different surgical procedures for pediatric eye conditions outside strabismus surgery.

9:30-10:00 am Anesthesia Considerations in Patients with Obstructive Sleep Apnea (OSA) Undergoing Eye Surgery
Chandra Kumar, MB BS, Khoo Teck Puat Hospital
Identify patients with undiagnosed obstructive sleep apnea syndrome. Identify patients with morbid obesity and obesity hypoventilation syndrome. Evaluate the evidence of post-operative complications in these patients. Review management of these patients to enhance safety.

10:00-10:40 am Difficult Cases
Tom Eke, MA (Cantab), MD, FRCOphth, Norfolk and Norwich University Hospitals
Howard Palte, MBChB, Bascom Palmer Eye Institute

10:45-11:00 am Coffee Break

11:00-11:35 am Hustead Memorial Lecture: Education in Ophthalmic Anesthesia
Steven Gayer, MD, MBA, University of Miami
Review the historical basis of ophthalmic anesthesia education. Understand the status of present day education in this area. Discuss options for future learning.

11:35 am-12:15 pm Panel - Sedation for MAC Eye Surgery
Steven Gayer, MD, MBA, University of Miami
Chandra Kumar, MB BS, Khoo Teck Puat Hospital
Tina Tran, MD, Johns Hopkins University
Maggie Jeffries, MD, Avanti Anesthesia
George Dumas, MD, University of Alabama
Understand utility of using multiple anesthetic adjuncts. Understand properties of ketamine used for sedation. Understand use of propofol for sedation.

12:15-1:30 pm Lunch Break (on your own)

1:30-2:45 pm BREAK OUT GROUPS
Electronic Medical Records
John Hitchens, CRNA, Open Source Anesthesia Electronic Medical Record
Understand how open source medical records can improve patient care. Learn how to accurately capture clinical data in the anesthesiology setting.

Anticoagulants and Eye Surgery
Elaine Liew, MD, FRCA, University of California-Los Angeles
Describe the different types of anticoagulants and why patients require anticoagulants. Describe how anticoagulants affect eye surgery, review guidelines for the use of anticoagulants in the perioperative period.

2:45-4:45 pm Hands-On Workshop with Pig Eyes & Cadaver Heads
Chandra Kumar, MB BS, Khoo Teck Puat Hospital
Steven Gayer, MD, MBA, University of Miami
Maggie Jeffries, MD, Avanti Anesthesia
Gary Cass, MD, Tampa Eye and Specialty Surgery Center
Join us on the 11th floor for this interactive, hands-on workshop. A certificate of completion is available for an additional fee of $20. To purchase the certificate option, please see OAS staff at the registration desk. Participants will be able to discuss the relevant anatomy of the eye and Orbit. Review the principles of topical, peribulbar, retrobulbar, sub-Tenon’s and nerve blocks.

4:45-6:30 pm Informal Networking
Upstairs at The Gwen Restaurant and Lounge or Terrace, 5th Floor
Sunday, September 15

7:00-7:30 am  
Continental Breakfast  
6th Floor Foyer

7:30-10:15 am  
Gallery Ballroom, 6th Floor  
General Sessions

7:30-8:00 am  
Welcome & Call to Order of Member Business Meeting  
Chris Bender, CRNA, Vance Thompson Vision

8:00-8:30 am  
Dementia and Cataract Surgery  
Chandra Kumar, MB BS, Khoo Teck Puat Hospital  
Apply the Global Deterioration Scale (GDS) to measure dementia stages in patient. Evaluate the impact of “Choosing Wisely” initiative on anesthesia options for cataract surgery in patients with dementia undergoing cataract surgery. Compare the effectiveness of regional anesthesia and general anesthesia in this patient population.

8:30-9:00 am  
Preanesthetic Evaluation of the Medically-Complex Pediatric Patient for Ophthalmologic Surgery  
Lisa Lee, MD, University of California-Los Angeles  
Identify difficult airway syndromes that are associated with cataract, glaucoma or strabismus. Identify factors that should be considered when scheduling a medically-complex pediatric patient for outpatient surgery. Discuss benefits/risks of the use of different premedication regimens in medically-complex pediatric patients.

9:00-9:15 am  
Coffee Break

9:15-9:45 am  
JCAHO Compliance Trends  
Elethia Dean, RN, PhD, ASC Compliance  
List reclassified core measures as accountability measures and describe how they will improve hospitals; understand how to improve patient safety goals while maintaining efficient procedure/surgery time.

9:45-10:15 am  
Perioperative Anesthesia Outcomes Following Eye Surgery  
Gundappa Neelakanta, MD, University of California-Los Angeles  
Review the techniques for providing analgesia, sedation, or anesthesia during cataract, glaucoma, and vitreoretinal surgery. Discuss high-value preoperative testing that includes the evaluation of comorbid conditions and perioperative decisions regarding chronically administered medications.

10:15 am  
Conference Concludes
Abstract #1
Author: Sergei Bersenev, MD
Company/Institution: IRTC Eye Microsurgery Yekaterinburg Center, Yekaterinburg, Russia

Regional Anesthesia for Prophylaxis of Cognitive Disorders in School-age Children in Ophthalmosurgery

REGIONAL ANESTHESIA FOR PROPHYLAXIS OF COGNITIVE DISORDERS IN SCHOOL-AGE CHILDREN IN OPHTHALMOSURGERY S.V. Bersenev1, P.M. Rylov2, V.A. Komlev3 1Anesthetist, IRTC Eye Microsurgery Yekaterinburg Center, Yekaterinburg, Russia 2Head of Anesthesiology Dept., IRTC Eye Microsurgery Yekaterinburg Center, Yekaterinburg, Russia 3Anesthetist, IRTC Eye Microsurgery Yekaterinburg Center, Yekaterinburg, Russia In ophthalmology there is a category of children who require multiple operations. General anesthesia may cause cognitive disorders in them [1, 2, 3, 4, 5, 6]. Aim of our paper was to estimate the possibility of ophthalmic surgery in children under regional anesthesia. Methods. For regional anesthesia retrobulbar injection of lidocaine 2.5% and ropivacaine 0.75% (1-2 ml) is performed, followed by 3-5 minutes oculocompression. Psychological contact between the child and the anesthetist is very important; surgery should be started only when the physician is sure that the child will have no pain. In case of doubt combined (general + regional) anesthesia should be chosen. Results. In our clinic 24 operations under regional anesthesia were performed in children aged from 8 to 17 including transscleral lasercyclorcoagulation, phaco + intraocular lens implantation, non-penetrating deep sclerectomy, squint surgery, corneal suture removal after penetrating keratoplasty, vitreous cavity revision + endolasercyclorcoagulation + silicone tamponade, scleral buckling. In all cases the children were satisfied with anesthesia. No complaints for pain or discomfort were marked. No signs of cognitive disorders were fixed after surgery. We had a 13-year-old girl with congenital glaucoma, high myopia, complicated cataract, band keratopathy of the left eye, congenital glaucoma, pseudophakia, condition after penetrating keratoplasty, myopic astigmatism of the right eye. Before, she had 26 general anesthesia after which memory and concentration disorders persisted up to 3 months. The girl has undergone 3 operations under regional anesthesia: transscleral lasercyclorcoagulation, corneal suture removal, non-penetrating deep sclerectomy without complaints for pain or discomfort during surgery. No sufficient changes of blood pressure and heart rate were marked. No memory and concentration disorders appeared. While choosing anesthesia the girl asks for retrobulbar anesthesia. Discussion. Considering psychoemotional features of childhood, general anesthesia remains the main method in ophthalmic anesthesiology. Nevertheless, there is an impression that use of regional anesthesia in children who had undergone multiple operations gives a possibility to provide good intra- and postoperative anesthesia and decrease the risk of cognitive disorders. Children well tolerate anesthesia and at re-appearance refuse from general anesthesia in favor of regional. To confirm this assumption further studies are necessary. References 1. Millar K1, Bowman A.W., Burns D. Millar K Children’s cognitive recovery after day-case general anesthesia: a randomized trial of propofol or isoflurane for dental procedures. PaediatrAnaesth. 2014 Feb; 24(2):201-7. 2. Aun C.S1.,McBride C., Lee A. Short-Term Changes in Postoperative Cognitive Function in Children Aged 5 to 12 Years Undergoing General Anesthesia: A Cohort Study. Medicine (Baltimore). 2016 Apr;95(14). 3. G.M. Woerlee “Anesthesia causes personality changes and even dementis” http://www.anesthesiaweb.org/dementia.php. 4. M. Wang et all “Adverse effects of inhalational anaesthetics on the developing brain” Medical Gas Research, 2014, 4:2 5. Schneuer FJ, Bentley JP, Davidson AJ, Holland AJ, et all. The impact of general anesthesia on child development and school performance: a population-based study. // Paediatr Anaesth. 2018 Jun;28(6):528-536. doi: 10.1111/pan.13390. Epub 2018 Apr 27. 6. Ing C, Dimaggio C, Whitehouse A, Hegarty MK, et all. Long-term Differences in Language and Cognitive Function After Childhood Exposure to Anesthesia // Pediatrics. 2012 Sep;130(3):e476-85. Epub 2012 Aug 20.

Abstract #2
Author: Michael Borkoski
Company/Institution: Johns Hopkins University

Communicating Anxiety-Reduction Techniques to Patients Prior to Eye Surgery

Recent data suggests that upwards of 70% of patients have some form of pre-operative anxiety that can be reduced and managed by using an anxiety reduction technique beforehand. Unfortunately, many patients are unaware of these techniques and their anxiety has grown unchecked, most certainly leading to complications in their medical care. Poor patient education has led to many patients not utilizing these techniques and their anxiety has grown unchecked, most certainly leading to complications in their medical care. My project investigated the most effective route of delivery to educate patients on these anxiety reduction techniques and when to do so. By interviewing patients in four rounds of interviews, I was able to conclude that patients genuinely are open to trying these techniques if educated about them. Doing this could be as easy as distributing a handout to patients or more intensive with a discussion between ophthalmologist and patient. There does not appear to be a concrete answer on how to optimize patient education and further clinical studies and discussions are required to bridge this lack of communication.
Abstract #3
Author: Manonmani Balachandar, MBBS DA
Company/Institution: Sankara Nethralaya, Medical Research Foundation

Allergic Reaction to Hyaluronidase After Peribulbar Block - Hard to Diagnose - Is It?

A 53-year-old female who underwent two previous uneventful vitreo retinal surgeries under peribulbar anaesthesia with bupivacaine and Hyaluronidase was posted for a third vitreo retinal surgery under local anaesthesia. Prior to the surgery she was administered 10 ml of 0.5% bupivacaine with 375 IU (37.5 IU/ml) of Hyaluronidase in peribulbar space. Immediately after the injection the lids and peri orbital region developed significant edema and the globe was observed to be tense digitally. A differential diagnosis of retrobulbar haemorrhage or hypersensitivity reaction to bupivacaine / Hyaluronidase was made. She was treated with a short course of parenteral steroids and antihistamines and surgery was deferred on that occasion. Subsequently when the patient presented for surgery after two months, sensitivity for lignocaine, bupivacaine and Hyaluronidase (15 IU) was tested (skin prick test). There was no reaction for any of the drugs. As the skin prick test was negative, she was cleared for surgery under local anesthesia and peribulbar block was administered with bupivacaine and Hyaluronidase. Patient developed pain, chemosis, periorbital edema of both eyes and tense globe soon after the injection like the previous occasion. IS IT A CASE OF HYALURONIDASE HYPERSENSITIVITY?

1. In earlier reported cases of hyaluronidase allergy, reactions occurred during second exposure after primary sensitisation. Our case could be one of the unusual cases where the allergic reaction to Hyaluronidase happened at third exposure.
2. Mild symptoms like lid edema which were recorded in her file during postoperative visit after the second surgery could have been a mild and delayed reaction to Hyaluronidase but overlooked as post surgical inflammation.
3. Fifteen units of Hyaluronidase was given as intradermal injection and there was no reaction after 30 minutes. As reaction to Hyaluronidase is dose dependent, positive reaction was not recognized in our patient.

Allergic reaction to Hyaluronidase injected in the peribulbar space, if mild and presenting late can be overlooked as surgical inflammation, if severe and immediate can mimic retrobulbar haemorrhage.

WHY JOIN OAS?

We are committed to bringing together anesthesiologists, ophthalmologists, certified registered nurse anesthetists and other professional personnel – people like you. We believe that collaboration, education and training can lead to the highest quality anesthesia care for patients undergoing cataract and other ophthalmic surgical procedures. Join us at eyeanesthesia.org today!

OAS Membership Benefits

• Special priority communications on clinical situations requiring immediate attention, including up-to-date information on the latest techniques, regulations, products and news in the subspecialty of ophthalmic anesthesia.
• Access to members-only online discussion forums that promote and encourage scientific innovations related to the provision of high quality patient care.
• The OASIS newsletter (distributed electronically four times a year) with timely updates on clinical and political issues in the subspecialty of ophthalmic anesthesia.
• Permission to members-only information on the OAS website, including presentations from previous annual scientific meetings.
• An annual roster of OAS members for networking opportunities with colleagues from around the country and around the world.
• Reduced registration to attend the annual scientific meetings.
• Most importantly, OAS provides you with solutions in providing the highest quality of ophthalmic anesthesia patient care.
ABI Anesthesia Billing, Inc.
Anesthesia Billing, Inc. provides quality and cost-effective billing management services for healthcare professionals who specialize in anesthesia and pain management. Dedicated to staying abreast of current changes and future needs of our clients, ABI focuses on collecting your income at an affordable and fair price.

Audio Digest
For over 65 years, Audio Digest has been a premier provider of quality audio continuing medical education. We provide content that is current and relevant to your practice in the most convenient way, allowing you to stay abreast of developments in your field and improve your standards of care for your patients.

Edge Pharmacy Services, LLC
Edge Pharmacy Services specialize in compounded Hyaluronidase blocks. Hy-blocks are premixed, ready-to-administer ophthalmic blocks dispensed in unit dose syringes. Hyblocks from Edge bring cost effective solutions to compounding compliance. Multiple formations meet the needs of all ophthalmic anesthesia professionals. Learn more at www.edgepharmacy.com.

Halozyme
Halozyme is a clinical-stage biotechnology company focused on developing and commercializing novel cancer therapies that target the tumor microenvironent. Additionally, Halozyme markets Hylenex® recombinant (hyaluronidase human injection), which is indicated as an adjuvant to increase the dispersion and absorption or other injected drugs. Learn more at www.halozyme.com.

Katena
Katena provides over 2000 of the highest quality ophthalmic surgical products including ophthalmic instruments, lenses and biologics. At OAS: New single-use sub-tenon anesthesia kit, new conjunctival probe single use anesthesia kit and instrument.

Orbital Compliance Group – Orbital Blocks
Orbital Blocks. Confidence in Care. Orbital Blocks provides an online interactive training and medical education experience offering in depth insight into ophthalmic blocks. Our program allows practitioners and educators the opportunity to improve the quality and safety of their ophthalmic anesthesia care.

EyePoint Pharmaceuticals
EyePoint Pharmaceuticals, Inc. (formerly pSivida Corp.) is a specialty biopharmaceutical company committed to developing and commercializing innovative ophthalmic products in indications with high unmet medical need to help improve the lives of patients with serious eye disorders.