

THE EDITOR OPINES

The 18th Scientific Meeting of the Ophthalmic Anesthesia Society was a rousing success, certainly one of our best and one with the highest attendance in many years. For those of you who missed it, this issue of *OASIS* features a written summary of its high points. The speakers were excellent and the topics most interesting. We certainly owe our thanks and congratulations to Steve Charles and Steve Gayer for planning such a terrific event. Our thanks also to Karen Morgan and her son Jim for their hard work in executing all the details that made the meeting possible.

The separate session for members of the allied health professions was less well attended, unfortunately, but those who were there seemed to thoroughly enjoy it. While the low turnout makes it impossible for us to run a separate session for them next year, we will always welcome those who work so closely with us to attend our annual meetings. We virtually always have presentations that will be interesting and valuable for them. We send our thanks to Karen Rouse, Donna Acord, and Kelly Gunnelson for their hard work in planning that portion of the meeting.

I enjoyed seeing so many old friends at the meeting, especially Bob and Joy Hustead, who are doing well and obviously enjoying

their well-earned retirement. I hope the new members of the society were able to feel the camaraderie that flows so freely among us, and I hope they'll realize that this feeling lasts throughout the year. Here is a group of people willing, able, and happy to help you out at any time; simply write an e-mail, pick up the phone, or compose a letter to the editor of this newsletter. One of the best benefits of membership is having a bunch of experts at your disposal whenever you need them. We all lean on each other, and we hope that the new members will feel comfortable leaning on us as we will on them. The more you take advantage of this organization, the more you will want to contribute to it by becoming a member of the board, contributing to its newsletter, being a speaker at the annual meeting, or simply helping someone else who is just learning this very special and important sub-specialty.

After the meeting, Gabriele Troll, Steve Gayer, Mark Feldman, and I put on a workshop at the annual meeting of the ASA in Las Vegas. It was well attended, and I have written a brief summary of it elsewhere in this issue. We consider it very successful and hopeful that some new memberships to OAS will result from our participation. As for Las Vegas: interesting, but I'm glad we have our annual meeting in Chicago! •

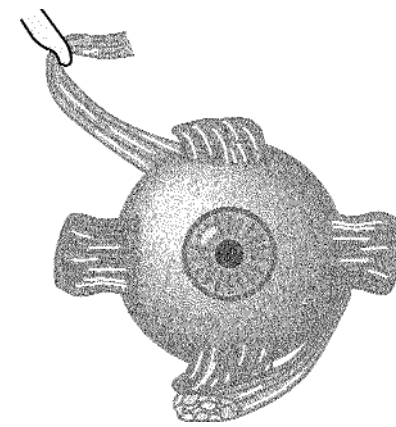


Gary Fanning, MD

Search Underway for Chief of Anesthesia Services at Callahan Eye Foundation Hospital

The University of Alabama at Birmingham is seeking a new Chief of Anesthesia Services for the Callahan Eye Foundation Hospital. This facility handles over 7000 cases per year in nine operating rooms, and it houses the academic Department of Ophthalmology as well as a significant number of community ophthalmologists.

Please address inquiries to Dr. David Chestnut, Professor and Chair of Anesthesiology. His e-mail address is dchestnut@uab.edu. His mailing address is 619 19th St. S, Birmingham, Alabama 35249-6810. The office phone number is (205) 934-6007. •



OASIS

OPHTHALMIC ANESTHESIA SOCIETY IN-SIGHT • FALL 2004 NEWSLETTER

Eighteenth Annual Scientific Meeting of the Ophthalmic Anesthesia Society

Gary Fanning, MD

Meeting again in Chicago, the Ophthalmic Anesthesia Society held its 18th annual scientific meeting the first weekend in October. Over 140 members participated, a significant increase from the past few years. The venue at the Westin Hotel on North Michigan was excellent.

The meeting began on Friday afternoon with the wife-husband team of Dr. Bobbie Jean Sweitzer and Dr. Stephen Small, both of the University of Chicago. Dr. Sweitzer gave an excellent presentation on what constitutes a medically necessary work-up for patients presenting for ophthalmic surgery. Dr. Small followed with a very interesting lecture on the importance of teamwork in the prevention of organizational accidents. This theme was continued by the next speaker, Dr. Jan Ehrenworth of Yale University, who gave a fascinating address about fire in the operating room, complete with demonstration. He reminded us of the three classic requirements for fire: fuel, oxygen, and an ignition source. We should all remain ever mindful of this deadly trio and strive continuously to keep them from getting together. We then heard one of our colleagues from England, Dr.

Chandra Kumar of the James Cook University Hospital in Middlesbrough, who discussed visual experiences during ophthalmic blocks and ophthalmic surgery. Having heard his excellent presentation, we should all be explaining to our patients that they may have visual experiences during both the block and the surgery itself. Friday's session concluded with a round of Ophthalmic-Anesthesia Jeopardy! It was a rousing and educational experience for all and proved to be quite popular. We hope to see a repeat next year. Jeopardy! put us all in a very good mood for the annual reception, which was held immediately afterward.

Saturday began with a lecture by Gary Fanning on a regional anesthesia technique for dacryocystorhinostomy, followed by a discus-

Continued on page two



President Steve Gayer and new Board member and Treasurer, Don Hirschman

vention of organizational accidents. This theme was continued by the next speaker, Dr. Jan Ehrenworth of Yale University, who gave a fascinating address about fire in the operating room, complete with demonstration. He reminded us of the three classic requirements for fire: fuel, oxygen, and an ignition source. We should all remain ever mindful of this deadly trio and strive continuously to keep them from getting together. We then heard one of our colleagues from England, Dr.

IN THIS ISSUE

ASA Workshop	4
Editor's Message	12
18th Annual OAS Meeting	1
Search Underway at UAB	12
New Board Members Elected	3
OAS Scientific Advisory Board	2
OAS Membership Meeting	9
Phenylephrine Eye Drops	10
President's Message	11
Under the Covers	5
You Asked for It!	7

18th Annual Meeting of the OAS

Continued from page one

sion by Marc Feldman of the economics of cataract surgery and anesthesia. Dr. Joseph Bayes of the Massachusetts Eye and Ear Infirmary then presented a guide to implanted pacemakers and defibrillators and their importance in the ophthalmic surgery patient. Dr. Douglas Bacon of the Mayo Clinic traced the history of the teaching against the use of succinylcholine in open globe injuries. The lesson learned is that “clinic impression” and “one-case learning” are no match for knowledge gained by good scientific inquiry. Dr. Gary Cass reviewed a variety of local anesthetics used in ophthalmic anesthesia, pointing out qualities of each agent that might be helpful in specific situations. He mentioned a new anesthetic, Articaine, which is available for use only by dentists in this country, but has been used for orbital blocks in Europe. Dr. Robert Johnson of the Bristol Eye Hospital in Bristol, England, completed the Saturday lectures with a superb presentation about the complications of ophthalmic regional anesthesia. Unfortunately, to date there has been no technique of ophthalmic anesthesia developed to be totally devoid of complications. The remainder of Saturday afternoon was filled with workshops. Randy Harvey, CRNA, led a workshop on the parallel ap-

proach to orbital blocks. Drs. Scott Greenbaum, Chandra Kumar, and Steve Gayer presented a workshop on cannula-based ophthalmic regional anesthesia. The hands-on portion of this workshop was particularly popular. Finally, Drs. Gary Fanning, Robert Johnson, and Marc Feldman gave a workshop on needle-based ophthalmic regional anesthesia. Each participant was able to attend two of the three workshops.

On Saturday, a parallel session was also held for allied health personnel. The key speaker was Mrs. Laurie Guest, COT and professional motivational speaker from De Kalb, Illinois, who delivered presentations entitled “When Opportunity Knocks” and “Best Kept Secrets of Successful People.” Donna Acord, RN, of the Boozman-Hof Eye Surgery and Laser Center in Rogers, Arkansas, shared her center’s system for preventing endophthalmitis, a topic presented by her and Dr. Randy Cole at last year’s OAS meeting. Jo Ann Steigerwald, RHT, of Medical Business Specialists in Baraboo, Wisconsin, lectured on the differences in billing systems between hospitals and ambulatory surgery centers.

Continued on page three

OAS Scientific Advisory Board

President

Steven Gayer, MD, MBA

Vice President

Richard J. Rivers, MD, PhD

Secretary

Len Romanowski, CRNA

Treasurer

Don Hirschman, CRNA, MHS, ND

Past President

Steve Charles, MD

Founder

Robert F. Hustead, MD

Annual Scientific Meeting Activity Director

Marc A. Feldman, MD, MHS

Directors

Gary D. Cass, MD
Randall E. Cole, MD
Scott Greenbaum, MD
Clyde Tempel, CRNA

Newsletter Editor & International Relations

Gary L. Fanning, MD

P.O. Box 406

Sycamore, IL 60178-0406

815.756.8574 X242 ph

815.756.1226 fax

815.899.7200 home ph

815.899.7001 home fax

glfanning@aol.com

Executive Director

Karen S. Morgan

793-A Foothill Blvd.,

PMB #119

San Luis Obispo, CA

93405

877.220.3585 ph

877.220.2793 fax

info@eyeanesthesia.org

Newsletter Production

Susan W. Westwood, MA

President’s Message

Steve Gayer, MD, MBA



Steve Gayer, MD, MBA

As the newly elected president of the Ophthalmic Anesthesia Society, it is my privilege and pleasure to offer a few words to the membership. I began my involvement with the society nine years ago. I came to the ninth annual meeting with minimal knowledge of ophthalmic anesthesia in general, and no experience in orbital regional anesthesia whatsoever. Through the tutelage and mentorship of OAS leaders, numerous lecturers, prominent members of the British Ophthalmologic Society, and others, I have flourished. To the entire membership I am appreciative and shall endeavor to serve the organization well.

The American Society of Anesthesiologists held its most recent national convention in Las Vegas, Nevada. At a panel discussion on postoperative visual loss, I was somewhat offput by one panel member, who basically stated that due to the risky nature of ophthalmic anesthesia, such blocks should be left to the hands of the ophthalmologists! Imagine hearing an anesthesiologist state that OB anesthesia has its inherent risks, so placement of subarachnoid blocks and epidural catheters should be performed by the obstetricians! Ridiculous!!! It is simply a matter of education. A study from a few years ago, which I quoted at this year’s national OAS meeting, revealed that over three-quarters of anesthesia programs do not provide *exposure* to ophthalmic anesthesia, much less hands-on work. Since Kathryn McGoldrick stopped giving an ophthalmic anesthesia lecture at the ASA a few years ago, no one has provided refresher course lectures on the topic. So, we fail to teach residents and we do not instruct attendings. No wonder there is so little appreciation of how to reduce the risks and complications of ophthalmic regional anesthesia!

OAS members have much to offer the medical community, and our presence and expertise in this subspecialty niche of anesthesia is palpable and becoming increasingly renowned. As you know, this organization’s

workshops, conducted at the ASA for the past two consecutive years as well as at our own national conference, have been very well received. We teach newer non-needle-based approaches to ophthalmic anesthesia—otherwise known as so-called cannula approaches—as well as newer techniques/modifications of traditional needle-based blocks. We hope to do this workshop once again at next year’s ASA in New Orleans and at our own Chicago conference. In addition, we are developing a one-day curriculum, which we will offer to anesthesia residency programs around the nation. We are also actively involved in a national effort to teach ophthalmic anesthesia to our CRNA colleagues. Randy Harvey, CRNA, conducts workshops on ocular anesthesia throughout the year. Some of us have lectured to ophthalmology residents and attendings and have spoken at international conferences of ophthalmologists. We have had great lectures from our ophthalmology members. It is as it should be: anesthesiologists and nurse anesthetists teaching anesthesia techniques with ophthalmologists providing clinical insights and wisdom from their own anesthesia experiences, with the result that we all thrive and our patients benefit.

OAS members have also contributed to the education in this field by writing and publishing prolifically. I never thought I would be able to contribute to a text as authoritative as the Barash book, *Clinical Anesthesia*, yet thanks, in part, to my involvement with this society, I have. This year, Dr. Mark Feldman co-wrote the chapter on eye anesthesia for the Miller text, *Anesthesia*. Dr. Fanning co-wrote and edited *Ophthalmic Anaesthesia* with our colleagues from the British Ophthalmologic Society, and several OAS members contributed chapters. Drs. Feldman, Cass, Greenbaum, myself, and other representatives of the OAS have publications in prominent national and international journals. There continues to be a definite need for dispersal of new information. Our organization exists to provide the requisite knowledge and instruction. •

Should Phenylephrine Eye Drops Be Used after Povidone Iodine Drops?

Gary Fanning, MD

I had an interesting occurrence during a strabismus case. If others have noticed this phenomenon, we should pool our experience and publish it.

A healthy six-year-old boy was scheduled for bilateral strabismus surgery. He was anesthetized with sevoflurane and switched to TIVA using propofol, rocuronium, and butorphanol (Stadol) after the IV was started. He received 0.1mg of glycopyrrolate right after the IV was started. His airway was secured with an LMA, and his respirations were mechanically controlled. As part of the surgical prep, the nurse put a drop of 10% povidone-iodine in each eye. While prepping the skin around the eye, she remembered that she had not used the phenylephrine drops ordered by the surgeon, so an assistant put a drop of 2.5% phenylephrine in each eye.

Shortly after this I noted the patient's blood pressure begin to rise. Starting from 87/45, it ultimately rose to 182/120 within about 10 minutes. His BIS monitor was reading 38 – 42, his ETCO2 was 34, and his SPO2 was 100%. I double checked every drug I had given him and confirmed that each had been correct. His heart rate was about 110 and the rhythm was sinus. I asked the surgeon to flush each eye with balanced salt solution and to defer starting surgery. The blood pressure fell gradually to the 110 – 120/70 – 80 range in about 5 – 10 minutes without any active intervention to lower it. The surgeon then proceeded, and the case was completed uneventfully. The child woke up promptly and was discharged about one hour postoperatively.

This was the first time I have seen this reaction to phenylephrine eye drops in strabismus surgery. Normally the drops are put in the eye shortly after the LMA is placed and long before the prep is begun. I don't recall our ever having to give them after the povidone-iodine

drops; however, we might have (although never resulting in hypertension). I am confident that the blood-pressure rise was due to the phenylephrine. I am wondering, however, whether the povidone-iodine somehow facilitated the uptake of the phenylephrine by the conjunctiva, thereby causing a systemic reaction. If anyone else has had this experience, I would be very interested in hearing about it and would appreciate your letting me know. In the future I will see to it that phenylephrine always precedes the povidone-iodine drops. •

Your OAS Member To-Do List

- ❑ *Mark your calendar:* The 19th annual Scientific Meeting of the OAS will be held September 23 – 25, 2005, at the Marriott Chicago Downtown.
- ❑ *Share your expertise:* Consider contributing to the *OASIS* newsletter. Contact Gary Fanning if you wish to write an article or suggest an idea. Or submit a question to answer—or answers to questions—in the “You Asked for It” column, which appears regularly.
- ❑ *Pay your 2005 dues promptly*
- ❑ *Contact your vendors:* The OAS needs outside funding to support the organization. Contact your vendors to see if they would be interested in having an exhibit at next year's annual meeting.
- ❑ *Check your label:* Is your contact information current? If you have recently moved or changed your name, title, or affiliation, contact the OAS office with those changes. •

18th Annual Meeting of the OAS

Continued from page two

Karen Rouse, RN, BSN, of the Hauser-Ross Eye Institute in Sycamore, Illinois, discussed the effects of generational differences in the work force in the ambulatory surgery center environment. Finally, Kimberly Riviello, BSN, CRNA, of the Cincinnati Eye Institute, talked about the everyday challenges that occur when trying to manage an ophthalmic surgery service.

Following the Annual Meeting of the Membership on Sunday morning, Dr. Leonid Skorin of the Mayo Health System in Albert Lea, Minnesota, spoke about the treatment of painful eyes, both those with sight and those without. He was followed by Dr. Paul Barach of the University of Miami Medical School, who discussed the topic of wrong-sided surgery and

similar errors. Dr. Barach is gathering data on this subject, and we hope OAS members will help in his effort. More information on how we can do so will be forthcoming. Sunday morning concluded in the traditional way with a panel discussion of real-life cases, supported as usual by numerous and excellent comments from the audience. Dr. Gabriele Troll from the Massachusetts Eye and Ear Infirmary and Dr. Terry Gabrielson from Rancho Mirage, California, provided the expertise on the panel.

We send many thanks to Dr. Steve Charles and Dr. Steve Gayer for their hard work in planning the meeting and providing us with so many superb speakers. Our thanks also go out to all of the speakers who provided us with such excellent presentations. •

New Board Members Elected

The three vacant positions on the Scientific Advisory Board have been filled. Dr. Randall Cole, ophthalmologist, has filled the position held by Dr. Jonathan Jahnke; Dr. Gary



Vice President Richard Rivers, retiring Board member Alfie Pino and Secretary Len Romanowski

Cass, anesthesiologist, has filled Dr. Alfie Pino's position; and Donald Hirschman, CRNA, ND, MHS, has filled that of Dan Simonson, CRNA.

We are delighted to welcome to the Board Dr. Randy Cole, a senior ophthalmologist at the Boozman-Hof Regional Eye Clinic in Rogers, Arkansas. He has a broad experience in high-volume cataract surgery and has worked very closely with the CRNA members on the staff at Boozman-Hof, an institution that provides excellent eye care to a large area of northwest Arkansas as well as from the three surrounding states of Missouri, Kansas, and Oklahoma.

We welcome back Dr. Gary Cass, who has served on the Board in the past and is a past-president of OAS. Gary practices in Tampa, Florida, at the Tampa Eye and Specialty Surgery Center. He is devoted to ophthalmic anesthesia, being especially interested in the various kinds of local anesthetics used in oph-

Continued on page four

Workshop on Ophthalmic Regional Anesthesia at Annual ASA Meeting in Las Vegas

Gary Fanning, MD

On Monday, October 25, 2004, the second annual Workshop on Ophthalmic Regional Anesthesia was given at the annual meeting of the American Society of Anesthesiologists in Las Vegas. Fifty attendees participated in the workshop, the second sellout in as many years.

The three-hour workshop began with three presentations: Gary Fanning lectured on anatomy, Steve Gayer on subTenon's anesthesia, and Marc Feldman on complications. The group was then divided into four sections to attend breakout sessions given by Fanning, Gayer, Feldman, and Dr. Gabriele Troll. The breakout sessions covered block techniques and clinical issues as well as Dr. Gayer's excellent hands-on session for subTenon's anesthesia. These sessions also gave attendees time to have their questions answered.

The room given to us this year was large and well-equipped, a marked improvement over last year. The workshop was well received by the attendees, many of whom are currently practicing ophthalmic anesthesia, but are not members of OAS.

You may be sure that the Ophthalmic Anesthesia Society was mentioned loudly and repeatedly during the morning, and copies of *OASIS* were distributed as well. We hope that this opportunity to teach will continue in the future, both to spread knowledge of our specialty and to expand the membership of OAS. •



Steve Gayer presents a lecture on subTenon's anesthesia at the ASA annual meeting in Las Vegas

New Board Members Elected

Continued from page three

thalmic anesthesia. He has published on this subject and has given presentations at our meetings as well.



Outgoing Treasurer Dan Simonson and Executive Director Karen Morgan

We welcome back Don Hirschman, who has also served on the Board in the past. Don is a long-standing and devoted member of our society. He practices at the Ochsner Eye Medical/Surgical Center in Wichita, Kansas. Don has long been interested in the subject of the anticoagulated patient facing ophthalmic surgery and wrote a dissertation for his doctoral degree in nursing on that subject.

We are most grateful to those members who have just finished their term on the Board and thank them for the wonderful job they've done. We also thank all those who ran for election to the Board and hope that many of you will actively seek to become members of it in the coming years. •

Minutes from the Annual Meeting of the Membership – October 3, 2004

Karen S. Morgan

The meeting was called to order at 8:00AM by Dr. Steven Gayer, the newly elected OAS President.

Mr. Romanowski read the minutes of the October 5, 2003, Annual Meeting of the Members; they were approved as read.

Mr. Simonson presented a September 30, 2004, preliminary financial statement and Treasurer's Report. He stated the anticipated fund balance would be approximately \$60,000, nearly \$13,000 higher than in 2003. The Treasurer's report was accepted as read. Mr. Simonson reported that an audit had been performed on the 2003 financial records; he stated the auditor's report was positive and that three recommendations had been acted upon by the Board: 1) affiliation with legal counsel, 2) approval by the Treasurer of invoices in excess of \$2500, and 3) an annual budget with two-year projections would be prepared by the Treasurer and Executive Director and submitted to the Board for approval at the first of each calendar year. Additionally, the Treasurer will present to the membership at the Annual Meeting a report demonstrating financial and membership status.

Dr. Gayer announced that the slate of Board nominees submitted to the membership by mail ballot had been approved. New directors are Dr. Gary Cass (Anesthesiology), Dr. Randy Cole (Ophthalmology) and Don Hirschman (Nurse Anesthetist). The new Board members assumed their duties as of the Sunday morning Annual Meeting of the Members. The Board voted to select Officers: Dr. Steven Gayer as President, Dr. Richard Rivers as Vice President, Len Romanowski to continue as Secretary, and Don

Hirschman to serve as Treasurer. Dr. Gary Fanning agreed to remain as editor of the OAS newsletter, *OASIS*, for one more year. The new President and Vice President, Drs. Gayer and Rivers, will serve as Annual Meeting Program Co-Chairs. Dr. Marc Feldman will continue to serve as liaison to Cleveland Clinic, the meeting sponsor for CME credit for physicians.

Karen Morgan presented the Executive Director's Report. She announced that 18 new members had joined OAS since the 2003 meeting, and that 167 members had paid 2004 dues. She announced that there were 130 paid annual meeting registrants plus faculty and complimentary attendees, an increase from the 2003 meeting. A special track for RNs was offered at this meeting for nurses; it was agreed to continue the track for one more year to see if attendance could be increased.

Dr. Gayer asked for a show of hands indicating preferences for meeting location and time frame. The attendees sustained Chicago as the favored location and agreed the timing should remain the same to avoid conflicts with ASA and AAO.

The members will be notified of the dates and location of the 2005 meeting as soon as they are solidified. It was announced the Westin did not have availability.

Respectfully submitted,

Karen S. Morgan
Executive Director •

Under the Covers

Continued from page seven

oxide for maintenance and were given droperidol 0.625mg at the beginning of surgery and ondansetron 4mg at the end. The final thirty patients (Group 3) received propofol for induction and maintenance but received no droperidol or ondansetron. All patients received midazolam and fentanyl as premedication and additional fentanyl as needed during surgery. Postoperative analgesia was managed by IV ketorolac at the end of surgery as well as local infiltration of the wound sites with bupivacaine.

In the 0 – 2 hour interval after surgery, the incidences of no nausea and vomiting were: Group 1 90%, Group 2 63%, and Group 3 66%. In the first 24 hours the incidences of no nausea and vomiting were: Group 1 80%, Group 2 63%, and Group 3 43%. The actual incidences of vomiting in the first 24 hours were: Group 1 3%, Group 2 17%, and Group 3 20%.

Editor's note: For those of you who administer general anesthesia for surgery of the eye, preventing postoperative nausea and vomiting (PONV) ought to be a very high priority in designing your anesthetic management. The first study cited tells us that the incidence of nausea and/or vomiting is greater than 50% in patients undergoing vitreal surgery using a standard (i.e., common) inhalational technique without any prophylaxis. An even higher percentage has been reported in many studies looking at strabismus surgery.

Both studies emphasize two very important issues with regard to preventing nausea and vomiting: 1) combination therapy is more effective than placebo and more effective than single agents, and 2) total intravenous anesthesia plus a combination of prophylactic agents is very effective. I wish that the German authors had included a group or two in which propofol had been used for maintenance of anesthesia. Many authors argue that prophylaxis is not as cost effective as treating only when the symptoms occur, but most would agree that high-risk patients, in-

cluding those undergoing certain kinds of surgery, deserve prophylaxis. In my opinion, most eye surgery counts as high risk with regard to nausea and vomiting, especially muscle surgery and vitreal surgery. For those who fear using droperidol, the combination of ondansetron or dolasetron (which is cheaper) plus dexamethasone is very useful, especially when combined with maintenance of general anesthesia using propofol. Use of local anesthesia before awakening the patient is another very useful adjunct, either by subTenon injection or extraconal injection, because avoiding the use of opioids postoperatively is also helpful in preventing PONV so long as pain can be adequately controlled by other modalities.

It would be interesting to hear from the members of OAS regarding their favorite combinations for preventing this very dreaded complication of general anesthesia for surgery of the eye. Write to me and I'll publish them in the next OASIS.

References: Eberhart LH, Morin AM, Hoerle S, Wulf H, Geldner G. Droperidol and dolasetron alone or in combination for prevention of postoperative nausea and vomiting after vitrectomy. *Ophthalmology* 2004; 111: 1569 – 1575.

Habib AS, White WD, Eubanks S, Pappas TN, and Gan TJ. A randomized comparison of a multimodal management strategy versus combination antiemetics for the prevention of postoperative nausea and vomiting. *Anesth Analg* 2004; 99:77 – 81. •

For those of you who administer general anesthesia for surgery of the eye, preventing postoperative nausea and vomiting (PONV) ought to be a very high priority in designing your anesthetic management.

You Asked for It!

Question: Conjunctival Ballooning

Our surgeons have purchased 25G equipment for retina surgery (B&L machine). Of course the disposable ports and lines are flimsy, so the surgeon cannot operate inside of a tight orbit without causing the flimsy lines to bend while moving the eye around. Additionally, any conjunctival ballooning presents a problem when inserting ports. Obviously, the answer is a perfect intraconal low-volume injection. I often achieve this, and the surgeon is able to freely move the eye, the patient is comfortable for hours, and the ports go in with ease.

On occasion, however, there is an issue with conjunctival ballooning. Just today I did a block after which the eye was akinetic, but there was the slightest conjunctival ballooning

On occasion, however, there is an issue with conjunctival ballooning. . . . I'm not sure what I can do if the surgical pressure is going to force injected local forward.

laterally. By the time we got to the OR, it was gone, but as soon as the surgeon had to push down to insert ports, a large amount of fluid came forward and ballooned the conjunctiva. At this point, the surgeon wasn't too happy.

I'm not sure what I can do if the surgical pressure is going to force injected local forward. I asked if it would be possible to snip the conjunctiva in a pinch and drain out the excess, but I'm open to any advice that you or another colleague would like to share with me.

Answer #1

One simple thing to try first is to wait longer after the block before beginning surgery, thus allowing more time for the local to disperse. In my experience, chemosis dissipates with "tincture of time," even with subsequent manipulation of the eye. Since

conjunctival ballooning is related to the volume injected, you might use a smaller volume for the inferotemporal block, adding a small volume via the medial canthal route after 5 – 10 minutes. Increasing the concentration of local anesthetic, such as mixing equal volumes of 4% lidocaine with 0.75% bupivacaine, may be of further benefit when using smaller volumes. Another option to consider is the use of a subTenon's block, which the surgeon can always supplement intraoperatively using the same incision if necessary. Finally, you can always use general anesthesia instead of a block if it makes the surgeon happier. Certainly many, if not most, of these procedures were done that way in the past.

— Terry Gabrielson, MD, Anesthesiologist

Answer #2

The issue of conjunctival ballooning after a block does not present a major problem for most of the surgeons I work with. Though a low-volume block may be a reasonable precaution, it may still occur at times. Some of our surgeons simply use a cotton-tipped applicator to flatten out the conjunctiva. All of our surgeons advise not to snip the conjunctiva for drainage.

— Gabriele Troll, MD, Anesthesiologist

Answer #3

Conjunctival ballooning is good because it mobilizes the conjunctiva facilitating lateral displacement, which is what makes these cases sutureless. The trocar-cannula systems compress the conjunctiva without any problem. The B&L trocar-cannula system is the real problem because it produces very high insertion force in contrast to the Alcon 25G system. The second issue is that the eye should

Continued on page six

You Asked for It!

Continued from page five

not be rotated in the orbit, and the tools should be rotated around the cannulas; this is mandatory with wide-angle visualization systems. Thirdly, the tubing should be attached to the drape with a service loop so it will not be pulled out. The Alcon infusion port is self-retaining in the cannula.

— Steve Charles, MD, Retinal Surgeon

Answer #4

(This is an edited version of the answer I sent to the questioner, before I asked permission to publish the question.)

Regarding your problem with chemosis, I wish I had a pat answer to give you. To be sure, using a longer needle and giving a low-volume injection reduces the problem of chemosis, but it potentially leads to other, less reversible problems (e.g., retrobulbar hemorrhage, optic nerve damage, muscle damage, brainstem anesthesia). I would use a one-and-one-quarter-inch 27G needle and inject slowly, using about 6mL, and then apply a Honan balloon or some other compression device.

After five minutes, I would then routinely supplement via the medial canthal approach (one-inch needle) using 3 – 4mL, after which I would apply the compression device for another 10 – 15 minutes. You won't have a zero incidence of chemosis, but it will be less than with a one-inch needle via the inferotemporal approach. I don't recall our retinal surgeon ever complaining to me about it, but then we weren't using the same equipment that you are.

Due to safety concerns, I still will never put a needle in the inferotemporal area longer than one and one-quarter inch. For cataracts I use one inch. With good orbital compression prior to surgery (minimum of 10 minutes, maxi-

mum 20), chemosis usually isn't a problem of our doing, although it certainly can be. It helps to have used a little hyaluronidase (1 unit/mL) to help disperse the volume of local anesthetic throughout the orbit.

The other thing you might consider is that this may be a problem for one surgeon and not another. A retinal surgeon (Dr. Li) gave a lecture at OAS a couple of years ago showing her technique of sub-Tenon's anesthesia for retinal surgery. She was injecting

10 – 11mL into Tenon's capsule. The amount of ballooning was absolutely astronomical! The bottom line is: if the surgeon causes the ballooning, it's always OK. If you or I cause it, it's either a problem or [as noted above by Dr. Charles] something for the surgeon to be thankful for.

— Gary Fanning, MD

The bottom line is: if the surgeon causes the ballooning, it's always OK. If you or I cause it, it's either a problem or [as noted above by Dr. Charles] something for the surgeon to be thankful for.

Overheard in the Block Room

Nurse Sue: "Are you comfortable, Sir?"

Patient (89 y.o. man): "No!"

Nurse Sue: "What can I do to make you more comfortable?"

Patient: "Send me home!"

Under the Covers

Gary Fanning, MD

More on hyaluronidase allergy

From the Mayo Clinic come three more case reports of allergy to hyaluronidase presenting as periorbital angioedema. These cases occurred from April 2001 to May 2002, during which time 432 cataract surgeries had been performed using pharmacy-compounded hyaluronidase. The authors reported on an FDA survey of compounding pharmacies in which 34% (10 out of 29) of the products sampled failed one or more quality tests. This compared with 2% for commercially prepared products. Allergy to hyaluronidase should be remembered and looked for.

Editor's note: Here are more examples of allergy to hyaluronidase. It will be interesting to see if similar case reports crop up when Vitrase starts being used in large numbers of patients. The patients in this case report had skin testing performed and reacted only to hyaluronidase, not to thimerosal or any of the other agents used during the surgery. My favorite pet peeve recurs. They used a concentration of hyaluronidase of 12.5 units per mL. They injected 3 mL, so used a total of 37.5 units. I use 1 unit per mL and inject on average 7 mL, for a total of 7 units.

Using less [hyaluronidase] won't prevent a true allergy, but it may reduce the duration and severity of symptoms. In addition, it will save a lot of money.

Therefore, these authors used five times as much hyaluronidase as I use. My message is: STOP USING SO MUCH HYALURONIDASE. YOU DON'T NEED SO MUCH! Using less won't prevent a true allergy, but it may reduce the duration and severity of symptoms. In addition, it will save a lot of money.

Reference: Eberhart AH, Weiler CR, Erie JC. Angioedema related to the use of hyaluronidase in cataract surgery. *Amer J Ophthalmol* 2004; 138:142 – 143.

More on nausea and vomiting

A group from Germany looked at the incidence of nausea and vomiting after vitreal surgery and compared the ability of droperidol, dolasetron, and a combination of the two drugs in preventing it. The patients were assigned to receive placebo, droperidol 10 mcg/kg, dolasetron 12.5 mg, or droperidol 10 mcg/kg plus dolasetron 12.5 mg. There were 78 patients in the placebo group, 76 receiving droperidol alone, 74 receiving dolasetron alone, and 76 receiving the combination. Patients in ASA physical status groups I and II received propofol for induction and a combination of desflurane, remifentanyl, and muscle relaxant for maintenance. Patients in ASA physical status group III received etomidate from induction, but the remainder of their care was the same. The eyes were not blocked, and postoperative analgesia was managed with NSAID and acetaminophen plus opioid if necessary.

The incidence of nausea and/or vomiting were: placebo 56.4%, droperidol alone 28.4%, dolasetron alone 39.5%, and combination 18.4%. The incidences of actual vomiting were: placebo 46.2%, droperidol 16.2%, dolasetron 21.1%, and combination 13.2%.

The authors concluded that dolasetron alone is not an effective preventative in this clinical situation and that combination therapy offers the greatest effect.

A group from Duke University in North Carolina studied ninety patients undergoing laparoscopic cholecystectomy. Thirty patients (Group 1) received total intravenous anesthesia with propofol induction and maintenance and were given droperidol 0.625mg at the beginning of surgery and ondansetron 4mg at the end. Thirty patients (Group 2) received propofol for induction and isoflurane/nitrous

Continued on page eight