

FELLOWS' FOCUS

HIGHLIGHTS FROM CHICAGO



Recapping Retina Subspecialty Day at the 2018 AAO Annual Meeting.

BY DURGA BORKAR, MD; PHILIP STOREY, MD, MPH; AND DANIEL SU, MD

Every year, the AAO Annual Meeting kicks off with 2 days focused on the retina subspecialty. These days are packed with information on the latest clinical and translational developments that have taken place over the past year. Although there were far too many fascinating talks to highlight them all here, we have singled out a few that stood out to us.

DAY 1

Vitreoretinal Surgery

The subspecialty program began with two riveting surgical sessions. Among many other speakers, Stanislaw Rizzo, MD, presented a novel technique for closing macular holes after an initial failed surgery. He described the successful use of human amniotic membrane as an adjuvant therapy for macular holes. Carl C. Awh, MD, discussed his experience with a new hypersonic vitrector.

The Charles L. Schepens, MD, Lecture

David W. Parke II, MD, presented

Joan W. Miller, MD, with the Charles L. Schepens, MD/AAO award. In her award lecture, Dr. Miller discussed advances in the treatment of age-related macular degeneration (AMD). Her lecture highlighted her own team's contributions in investigating the role of VEGF in ocular neovascularization, as well as her work with photodynamic therapy. Dr. Miller also discussed the next steps for advancing therapeutics in AMD.

The Business of Retina

Another session featured talks on the business and practice of retina, including a presentation by George A. Williams, MD, on the experiences of the Ophthalmic Mutual Insurance Company over the past 30 years. He spoke about lawsuits involving retinopathy of prematurity, endophthalmitis and silicone oil droplets after intravitreal injections, and gas dilution for vitreoretinal surgery. Dennis P. Han, MD, discussed efficient patient flow and his efforts to promote

efficient workflow without increasing costs. Highlights included the importance of a consistent team, shared workstations, and multifunctional training for staff members.

Medical Retina

Next up was an interesting medical retina case panel consisting of K. Bailey Freund, MD; David Sarraf, MD; Lee Jampol, MD; and Anita Agarwal, MD, and moderated by William Mieler, MD. Highlights included a case of "ferret-scratch" disease and a novel presentation of nivolumab (Opdivo, Bristol-Myers Squibb) toxicity.

Following the medical retina panel, Carl D. Regillo, MD, presented results of the phase 2 LADDER study investigating the efficacy and safety of the ranibizumab (Lucentis, Genentech) Port Delivery System. The study found that there was durable, effective disease control with a dose response with use of the device. The BCVA and anatomic outcomes were comparable to those with monthly intravitreal ranibizumab injections.

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Special Lecture

Dale Webster, PhD, a software engineer for Google, rounded out the morning with a special lecture on the use of deep learning and artificial intelligence for reading and interpreting fundus photographs.

Pediatric Retina

The afternoon included a pediatric retina session. Two of the speakers, Robert Avery, MD, and Mary Elizabeth Hartnett, MD, reviewed the current understanding of the role of anti-VEGF therapy in the treatment of retinopathy of prematurity.

First-Time Results of Clinical Trials

In this session, multiple trial results were revealed. William Freeman, MD, presented for the first time the results of a phase 2 study evaluating the safety and efficacy of a brimonidine drug delivery system (Allergan) for treat-

ment of geographic atrophy. These results, showing a statistically significant reduction in geographic atrophy area growth in the treatment group at 24 and 30 months, have prompted the initiation of an ongoing phase 3 study.

Rahul Khurana, MD, presented the 52-week results of SEQUOIA and CEDAR, two parallel phase 3 studies evaluating the safety and efficacy of abicipar (Molecular Partners) in comparison with ranibizumab for neovascular AMD. In both studies, abicipar demonstrated noninferiority in VA compared with ranibizumab at 52 weeks.

DAY 2

Imaging

The second day of the subspecialty program kicked off with a session on imaging. Several important talks were presented during this session, including a presentation by Jay S. Duker, MD,

describing the growing clinical utility of OCT angiography imaging.

Late-Breaking Developments

Pravin Dugel, MD, presented the 96-week results of the HAWK and HARRIER trials, in which the noninferiority endpoint for brolicizumab (RTH258, Novartis) compared with aflibercept (Eylea, Regeneron) at 96 weeks was met.

Neovascular AMD

Andrew P. Schachar, MD, discussed whether the availability of brolicizumab would make a difference in the treatment paradigm for neovascular AMD, considering safety, treatment burden, and cost.

Diabetes

A session later in the day on diabetes included a presentation by David J. Browning, MD, PhD, on what happens to patients after they leave Diabetic Retinopathy Clinical Research Network protocol studies. Data suggest that patients from Protocols I and T largely maintained their VA gains, while those from Protocol B did not.

Mark W. Johnson, MD, presented a real-world study showing that patients with interruptions in treatment who are receiving anti-VEGF monotherapy for proliferative diabetic retinopathy do worse than those receiving panretinal photocoagulation.

Innovative Retinal Interventions

Glenn J. Jaffe, MD, presented the results of two phase 3 clinical trials evaluating the safety and efficacy of an in-office injectable fluocinolone acetonide implant, showing that the injectable implant achieved good control of inflammation in noninfectious posterior uveitis and had a favorable safety profile.

Chirag P. Shah, MD, MPH, presented on the art and science of Nd:YAG vitreolysis for floaters. He discussed a randomized controlled trial showing low rates of complications in the

laser treatment group, similar to a case series of 1,272 eyes presented by Singh et al at the 2017 AAO Annual Meeting.

Case Studies and Management Panel

Later in the day, Dean Elliott, MD, led a lively surgical case panel discussion. Issues discussed included dealing with slippage and folds in retinal detachments with giant retinal tears, removing silicone oil from the back of an IOL, and use of scleral buckle in cases of retinal detachment in the presence of proliferative vitreoretinopathy.

Surgical Complications Panel

In another panel presentation, several interesting techniques were discussed for addressing retinal incarceration into the vitreous cutter, as well as how to deal with subretinal perfluorocarbon liquid.

The session closed with a discussion on how to deal with bleeding during macular surgery, particularly when an iatrogenic posterior retinal break occurs. Panelists agreed that photocoagulation is not necessary, but that it is important to do a thorough internal limiting membrane peel and increase the IOP right away to prevent blood from entering the subretinal space.

WRAPPING UP

This year's program was filled with exciting presentations on the latest clinical trial results, new imaging techniques, and invigorating panel discussions. We look forward to seeing what new information will be presented at next year's AAO Annual Meeting. ■

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