AMERICAN UVEITIS SOCIETY

21st ANNUAL

WINTER SYMPOSIUM

JANUARY 14-16, 2017

Canyons Grand Summit Hotel, Park City, Utah

PROGRAM CO-CHAIRS: GLENN J. JAFFE, MD and ALBERT T. VITALE, MD
AUS 21st Annual Winter Symposium

Guest Speakers

Martha J. Glenn, MD
Professor of Medicine
University of Utah
Huntsman Cancer Institute
Salt Lake City, UT

Lee M. Jampol, MD
Professor of Ophthalmology
Northwestern University
Feinberg School of Medicine
Chicago, IL

Gary N. Holland, MD
Professor of Ophthalmology
UCLA Stein Eye Institute
Los Angeles, CA

David J. Wilson, MD
Professor and Thiele-Petti Chair
Casey Eye Institute
Portland, OR

Program Co-Chairs

Glenn J. Jaffe, MD
Robert Machemer Professor of Ophthalmology
Duke Eye Center
Durham, NC

Albert T. Vitale, MD
Professor, Ophthalmology and Visual Sciences
John A. Moran Eye Center
University of Utah
Salt Lake City, UT
CASE PRESENTATIONS
AND FREE PAPERS

8:05-8:17 am
7 Year Results of the Multicenter Uveitis Steroid Treatment Trial and Follow-up Study
JOHN H. KEMPEN, MD, PhD

8:17-8:22 am
Discussion

8:22-8:34 am
Comparison Between Optical Coherence Tomography (OCT) and OCT Angiography (OCT-A) in Patients with Posterior Uveitis and Choroidal Neovascular Membrane
ARTHI VENKAT, MD
Santen, Inc. Travel Grant Awardee

Co-authors: Ashleigh L. Levison, MD; Kimberly Baynes, BSN, RN, COA; Francesco Pichi, MD; Sumit Sharma, MD; Careen Y. Lowder, MD, PhD; Sunil K. Srivastava, MD

Purpose: OCT-A is a novel imaging modality which allows identification of vascular changes without the use of injectable dyes. We sought to identify changes on optical coherence tomography angiography (OCT-A) in patients with known inflammatory choroidal neovascular membrane (CNVM) and compare them to findings on optical coherence tomography (OCT).

Methods: 12 eyes of 10 patients with known inflammatory CNVM and posterior uveitis were reviewed as part of an observational case series. OCT and OCT-A were performed on all patients. The imaging was reviewed and compared, and morphologic features on OCT that correlated to OCT-A changes were identified.

Results: All patients had posterior uveitis with CNVM that was diagnosed clinically. Patients were between 28 and 63 years of age. 100% of patients were female and had posterior uveitis; diagnoses included multifocal choroiditis and panuveitis, punctate inner choroidopathy, sarcoid uveitis, birdshot chorioretinopathy, and unspecified posterior uveitis.

All eyes demonstrated choroidal vascular abnormalities on OCT-A. OCT findings were more varied; although all patients demonstrated outer retinal abnormalities, 7 of 12 patients had subretinal hyperreflective material (SHRM), 1 patient had pigment epithelial detachment and subretinal fluid, 3 patients had IS-OS abnormalities, 3 patients had atrophy, 1 patient had RPE irregularity and 1 patient had focal choroidal excavation. None of the OCT findings consistently correlated with specific OCT-A findings, nor with the presence of CNVM.

Conclusion: From our small pilot study, OCT-A consistently demonstrated choroidal vascular anomalies in patients with CNV. However, OCT demonstrated a variety of findings including SHRM, atrophy and outer retinal loss. Given the varied, non-specific, and often subtle changes on OCT, OCT-A may be a stronger imaging modality for inflammatory CNVM.

8:34-8:39 am
Discussion

8:39-8:51 am
In Vivo Bioluminescence Imaging for Longitudinal Monitoring of Inflammation in Animal Models of Uveitis
KATHRYN PEPPLE, MD, PhD

8:51-8:56 am
Discussion
4:05-4:50 pm
White Spots of the Retina: What New Imaging Techniques Tell Us
LEE M. JAMPOL, MD
The White Spot Syndromes are a group of diverse idiopathic inflammatory diseases which have been described over the last 50 years. The etiopathogenesis remains unknown. There is controversy over the diagnosis and the best treatment of these distinct entities; however, modern imaging has given us new insights into the retinal changes.

The availability of standard testing like fundus photography, fluorescein angiography, and ICG angiography has now been supplemented by the availability of spectral domain OCT, OCT angiography, wide-field photography including angiography. In particular en-face and B OCT images have given us much new information.

This talk will review the important basic information on those entities and will show examples of imaging of patients with active and inactive lesions. The talk will cover APMPPE, serpiginous choroiditis, multifocal choroiditis-punctate inner choroidopathy, as well as AZOOR. I hope it will also stimulate discussions of the best management of these patients.

4:50-5:05 pm
Discussion

5:05-5:50 pm
Birdshot Chorioretinopathy: Insights From a Decade of Collaborative Studies
GARY N. HOLLAND, MD
Dr. Holland has been involved in collaborative studies of birdshot chorioretinopathy (BSCR) for more than 15 years, including studies of HLA subtypes and KIR genes (with the UCLA Immunogenetics Center) and a study of OCT imaging at 5 sites in the United States (UCLA, Duke University, Johns Hopkins University, Northwestern University, and University of Utah, organized with Christian Boni, currently at the University of Zurich).

In 2002, Dr. Holland proposed a prospective, longitudinal, observational cohort study of patients with BSCR that is still being conducted at the Hôpital Cochin in Paris, France by Antoine Brézin and Dominique Monnet; results from the first 10 years of follow-up are being analyzed currently with Jennifer Thorne (Johns Hopkins University) and Fei Yu (UCLA Fielding School of Public Health).

In this presentation, Dr. Holland will provide an overview of these studies, with comparisons to the existing medical literature on BSCR. Among findings from these studies, investigators have identified factors that predict decline in vision-related quality of life; they include deterioration in visual field mean deviation, progression of abnormal color vision, development of nyctalopia, and developing the symptom of poor contrast. They have shown the presence of choroidal abnormalities on OCT imaging that do not correspond to “birdshot lesions” and are not visible on fundus examination.

Goals of these studies have been the identification of clinically relevant factors that can be used for monitoring patients with BSCR and creation of standard variables for future clinical research dealing with BSCR, which will allow better cross-study comparisons.

5:50-6:05 pm
Discussion

6:05-6:25 pm
Break

6:25-7:18 pm
CASE PRESENTATIONS AND FREE PAPERS

6:25-6:37 pm
Immunosuppression for Inflammatory Choroiditides
DOUGLAS A. JABS, MD, MBA

6:37-6:42 pm
Discussion

6:42-6:49 pm
Bilateral Choroidal and Retinal Vasculopathy in a 56-year old ANA+ Male Presenting as APMPPE
LYNN M. HASSMAN, MD, PhD

6:49-6:54 pm
Discussion

SUNDAY
JANUARY 15

7:00-8:00 am
Breakfast

7:00-9:30 am
Exhibits

8:00-8:05 am
Introduction
ALBERT T. VITALE, MD
Methods

Washington (UW) reference laboratory. Panuveitis analyzed by the University of infectious etiological testing using traditional and new techniques in cases of panuveitis analyzed by the University of Pennsylvania and the Pacific Northwest.

Purpose

Andrew Bryan, Kathryn Pepple.
Co-authors: Macklin Nguyen, Cecilia Lee, Andrew Bryan, Kathryn Pepple.

Results and Predictive Characteristics of Infectious Panuveitis Sampling in the Pacific Northwest

KAINON PAKZAD-VAEZI, MD
Santen, Inc. Travel Grant Awardee
Co-authors: Macklin Nguyen, Cecilia Lee, Andrew Bryan, Kathryn Pepple.

Discussion

Results: Of 85 patient samples sent for bacterial and fungal testing during the study period, 16 (19%) were dual positive by culture and PCR, 43 (51%) were dual negative by culture and PCR, 10 (12%) were positive by culture only, and 16 (19%) were positive by PCR only. Univariate logistic regression analysis of PCR samples demonstrated that a surgical specimen was associated with a positive result (OR 3.34, 95% CI 1.12-10.51; p=0.03), with a trend towards positivity from a vitreous tap (OR 0.27, 95% CI 0.12-1.08; p=0.08), pre-sample antibiotic use (OR 2.57, 95% CI 0.85-8.45, p=0.10), and prior eye surgery (OR 2.44, 95% CI 0.82-7.57; p=0.11). Multivariate analysis demonstrated a significant association of prior eye surgery with PCR positivity (OR 4.06, 95% CI 1.12-17.25; p=0.04), and a trend in regards to surgical samples (OR 6.19, 95% CI 0.78-62.97; p=0.09). Parameters associated with culture positivity were surgical samples (OR 2.39, 95% CI 0.99-9.08; p=0.05) and vitreous taps (OR 0.47, 95% CI 0.13-1.17; p=0.10) by univariate analysis, and surgical samples by multivariate analysis (OR 6.12, 95% CI 0.84-61.31; p=0.09). Of 112 samples sent for viral PCR, 37 (33%) were positive. Aqueous, vitreous, and vitrectomy samples were positive in 35% (18/51), 27% (10/37), and 33% (8/24), respectively. Most viral titers were very high and could be detected with low sample volumes (~20 μl) without a significant miss-rate. An algorithm for specimen handling based on infectious clinical suspicion and volume of sample obtained is presented.

Conclusion: In our region's reference laboratory, PCR is more likely to be positive than culture, although the importance of culture is still apparent. There is a higher likelihood of positive results in cases of post-operative endophthalmitis, and likely from surgical samples independent of sample volume. Low sample volumes are inadequate for viral PCR testing. The clinician should play an active role in guiding sample handling with respect to PCR versus culture in the context of sample volume and clinical suspicion.

Discussion

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Purpose and Rationale: The West African Ebola virus disease (EVD) outbreak of 2013-2016 was of historic magnitude leading to over 28,600 cases and 11,300 deaths. This outbreak was caused by the Zaire Ebolavirus, which is associated with the highest fatality rate reported as high as 90% in prior outbreaks. Survivors are at risk for sequelae including vision-threatening uveitis and structural complications such as cataract that require surgical intervention. Because of prior identification of live Ebola virus in aqueous humor, there is concern regarding persistent virus in ocular fluid and potential harm to eye care providers. This is of utmost importance given the high viremia previously documented in immune privileged sites and health care provider (HCP) infections during the recent outbreak.

The aims of the EVICT Study are to prospectively evaluate the prevalence of Ebola virus persistence in ocular fluids for EVD survivors who require eye surgery for vision rehabilitation and to establish protocols for sampling intraocular fluid with carefully vetted infection control precautions. Herein we present the study design and baseline characteristics of the EVICT patient population during screening.
Methods: EVD survivors were identified via the Sierra Leone Ministry of Health and Sanitation (MOHS) National Eye Program in June 2016. Patients were screened for enrollment into the EVICT study if they had any of the following: 1) visually significant cataract requiring surgery 2) active uveitis 3) uveitis recurrence or other medical indication for ocular fluid sampling (aqueous humor or vitreous humor). Demographic and medical information were collected at baseline. Complete ophthalmologic examination including visual acuity, slit lamp, and dilated funduscopic examination were performed. B-scan ultrasound was performed in patients where an incomplete view of the posterior segment was noted.

A facility was designed at the Lowell and Ruth Gess Eye Hospital, which included a green zone for donning personal protective equipment (PPE), procedure room (red zone) with Infectious Disease specialist trained in PPE and specimen handling, and decontamination area for patient and HCP safety. Protocols for safe specimen handling, storage, and transport were established with World Health Organization (WHO) and Emory University Serious Communicable Disease Unit guidance.

Results: During the screening phase for EVICT, 63 patients were screened, of whom 22 patients (35%) were enrolled. The mean age of enrolled patients was 30 (range 12-70) compared to 27 (range 7-67) in patients not enrolled (P = 0.83). The median visual acuity of patients enrolled was 20/1000 (Range 20/40 – Hand motions) compared to 20/150 (Range 20/20 – Light perception) in patients who were not enrolled (P = 0.009).

Cataract was identified in 20 of 22 patients enrolled (91%) and 19 of 42 patients not enrolled (P = 0.003). Two patients with active anterior or intermediate uveitis warranting ocular fluid sampling were enrolled. Cataracts included uveitis-associated (18, 90%), age-related (1, 5%), and traumatic (1, 5%). Structural complications identified in enrolled patients with cataract included posterior synechiae (15, 68%), keratic precipitates (5, 23%) and chorioretinal scarring (5, 23%).

Reasons for screen failure included non-visually significant cataracts (9), retinal or optic nerve disease precluding visual improvement with cataract surgery (5), hypotony/phthisis bulbi (2), or other (3). Uveitis was observed in 12 patients (29%) and structural complications included posterior synechiae (6, 14%), keratic precipitates (2, 4.8%), and chorioretinal scarring (4, 9.5%) although these findings were observed less than in the enrolled patients. (P = 0.00002 for posterior synechiae; P = 0.04 for keratic precipitates; P = 0.25 for chorioretinal scarring).

A facility suitable for ocular fluid sampling with high-level infection control precautions was developed through a multi-disciplinary collaboration including ophthalmologists, infectious disease and public health specialists. Infection control precautions included HCP monitoring during donning and doffing of PPE, specimen handling precautions, proper waste management and environmental cleaning to ensure the safety of patients and HCPs.

Conclusion: Patients enrolled in the EVICT Study had significant visual loss from cataract, largely due to uveitis, requiring cataract surgery, in addition to a high prevalence of structural complications. A high prevalence of uveitis and associated structural complications were observed among EVD survivors who were screened whether enrollment was elected or deferred. A multidisciplinary approach with multiple partners was valuable for establishing protocols, facilities management for infection control, and evaluation of patients with advanced ophthalmic surgical subspecialty needs in West Africa. Ocular fluid testing will determine the prevalence of persistent Ebola virus in ocular tissues and fluids in the EVICT Study.

Discussion

8:51-8:56 am

Discussion

8:56-9:03 am

Sudden Vision Loss During Treatment for Syphilitic Uveitis

JOSE A. MARTINEZ, MD

9:03-9:08 am

Discussion

9:08-9:23 am

INDUSTRY PARTNER PRESENTATIONS

9:08-9:13 am

Allergan, Inc.

9:13-9:18 am

EyeGate Pharmaceuticals, Inc.

9:18-9:23 am

Mallinckrodt Pharmaceuticals, Inc.

9:23-9:30 am

Wrap Up

GLENN J. JAFFE, MD

9:30 am

End of Morning Session

3:30-4:00 pm

Break

3:30-7:30 pm

Exhibits

4:00-6:05 pm

SCIENTIFIC SESSION 2: NEOPLASTIC UVEITIC MANAGEMENT

4:00-4:05 pm

Introduction

ALBERT T. VITALE, MD

4:05-4:50 pm

50 Shades of Intraocular Lymphoma… the Protean Manifestations of the 3rd Primary Intraocular Malignancy

DAVID J. WILSON, MD

This talk will cover the various clinical presentations, diagnostic evaluations, and treatment options for primary vitreoretinal lymphoma, primary uveal lymphoma, and other related disorders.

4:50-5:05 pm

Discussion
5:05-5:50 pm  
**Hematologic Malignancies and the Eye**  
MARTHA J. GLENN, MD  
Although ocular involvement with hematologic malignancies is rare, patients may initially present with eye findings or develop them during the course of their illness. In this talk, I will provide an overview of these malignancies, their presentation and treatment, focusing primarily on those involving the eye including primary ocular lymphoma, orbital mucosa-associated lymphoid tissue (MALT) lymphoma and acute leukemia. Certain concepts are important when caring for these patients, including recognition of the aggressiveness of many of these diseases, importance of staging, use of local and/or systemic treatment modalities, and collaboration between specialists in the development and implementation of the overall treatment plan for optimal treatment.

5:50-6:05 pm  
**Discussion**

6:05-6:25 pm  
**Break**

6:25-7:25 pm  
**CASE PRESENTATIONS AND FREE PAPERS**

6:25-6:32 pm  
**The Eye (and Vitrectomy) as a Window to the Brain**  
MELINA I. MORKIN, MD

6:32-6:37 pm  
**Discussion**

6:37-6:44 pm  
**OCT Biopsy?**  
MARK JOHNSON, MD

6:44-6:49 pm  
**Discussion**

6:49-6:56 pm  
**Ocular Presentations of Lymphoma**  
ANJUM KOREISHI, MD

7:01-7:08 pm  
**Intraocular Lymphoma: Not Always B cell**  
MARISSA LAROCHELLE, MD

7:08-7:13 pm  
**Discussion**

7:13-7:20 pm  
**A Masquerade of a Masquerade**  
LANA RIFKIN, MD

7:20-7:25 pm  
**Discussion**

7:25-7:30 pm  
**Wrap Up**  
ALBERT T. VITALE, MD

7:30 pm  
**End of Evening Session**

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**MONDAY**  
**JANUARY 16**

7:00-8:00 am  
**Breakfast**

7:00-9:30 am  
**Exhibits**

8:00-8:05 am  
**Introduction**  
GLENN J. JAFFE, MD

8:05-9:17 am  
**CASE PRESENTATIONS AND FREE PAPERS**

8:05-8:12 am  
**Amyloidosis Presenting as Retinal Vasculitis**  
JUDY CHEN, MD

8:12-8:17 am  
**Discussion**

8:17-8:24 am  
**Pembrolizumab Induced Exudative Retinal Detachment**  
AJAY SINGH, MD

8:24-8:29 am  
**Discussion**

8:29-8:36 am  
**Umab-related Panuveitis**  
CHI SHENG CHIANG, MD, PhD

8:36-8:41 am  
**Discussion**

8:41-8:48 am  
**Sarcoid Screening Project**  
KARA LAMATTINA, MD

8:48-8:53 am  
**Discussion**

8:53-9:00 am  
**Vision Loss with High Fever and Lymphadenopathy**  
LEANNE LABRIOLA, DO

9:00-9:05 am  
**Discussion**

9:05-9:12 am  
**Complications Are Complicated**  
HELEN K. LI, MD

9:12-9:17 am  
**Discussion**

9:17-9:30 am  
**Closing Remarks**  
GLENN J. JAFFE, MD

9:30 am  
**Meeting Adjourned**
The AUS gratefully acknowledges the following companies for their contributions:

**PLATINUM**

AbbVie

**GOLD**

Allergan, Inc.
Clearside Biomedical, Inc.

**SILVER**

Bausch + Lomb
EyeGate Pharmaceuticals, Inc.
Mallinckrodt Pharmaceuticals, Inc.
Santen, Inc.

**GRANTS**

3 travel grants provided courtesy of Santen, Inc.

**MEETING PLANNER**

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