

Meeting Notes from VBS 2.0 Las Vegas

Friday, March 14: Lifetime Mentorship Award Lecture and the Uveitis Section.

Summary by John Miller, MD

The Vit-Buckle Society (VBS) is a forum for “innovative vitreoretinal surgeons to share best practices, to foster the development and use of novel surgical technologies and strategies for retinal diseases, and to demonstrate the value of mentorship of emerging vitreoretinal surgeons.” The mission statement of the VBS was on full display at the society’s second annual meeting, VBS 2.0, which took place on March 14 and 15, 2014, in Las Vegas, Nevada.

Of particular importance to the society is “mentorship of emerging vitreoretinal surgeons.” The VBS Fellows Foray is an open forum where vitreoretinal fellows present challenging surgical cases to a panel of experts. The foray took place on March 14th, and was a huge success in providing a platform for vitreoretinal surgeons to discuss current challenges in vitreoretinal surgery among their peers and to learn from experts in the field. The VBS Fellows Foray has been a successful component of the VBS annual meeting since its inception in 2013. Participation by vitreoretinal fellows in the VBS annual meeting is a critical part of the mission of the VBS, and the Fellows Foray provides the means by which these fellows can participate. There is a lot of excitement about next year’s VBS meeting in Miami Beach, Florida, where there will be a contest to find and discuss the most interesting retina surgical complication videos. See the VBS 2015 meeting website for details.

In addition, the participating fellows play an integral role in the note taking process of the meeting, allowing for a synopsis for those of you who were unable to attend. New Retina MD is pleased present an ongoing series of notes from the meeting. Here, John Miller, MD, a second-year retina fellow at Massachusetts Eye and Ear Infirmary, Harvard Medical School, recaps the VBS Lifetime Mentorship Award Lecture presented by Harry W. Flynn Jr, MD, and offers a review of selected cases from the uveitis section.

VBS LIFETIME MENTORSHIP AWARD LECTURE

Harry W. Flynn, Jr, MD, was presented the 2014 VBS Lifetime Mentorship Award by Dr. Thomas Albini. Dr. Flynn’s initial comments emphasized the importance of having good mentors. He credited Drs. Wayne E. Fung and Donald M. Gass for fostering his growth as a retina specialist. Dr. Flynn then turned to the focus of his talk, examining some common complications of vitreoretinal surgery. He reviewed postoperative endophthalmitis and discussed key distinguishing features between sterile and infectious endophthalmitis.

Dr. Flynn showed examples of the “Avastin [bevacizumab, Genentech] crunch” after intravitreal injection, nicely illustrating the tremendous contraction of fibrovascular membranes that can lead to progression of tractional retinal detachments. He encouraged caution in removing subretinal bands in diabetic patients due to the risk of retinotomy enlargement. He also presented “doughnut” retinal detachments that most commonly occur after primary vitrectomy in phakic patients.

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Dr. Flynn then discussed the potential for iatrogenic breaks that can arise during vitreoretinal surgery, showing cases in highly myopic patients and in a patient with optic pit maculopathy. He discussed a case of a retinal fold occurring after slippage in fluid-air exchange. Dr. Flynn concluded his presentation with a case where the foveal

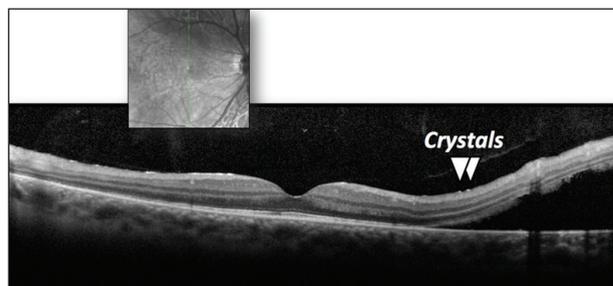


Figure 1. OCT images suggested a diagnosis of Schwartz-Matsuo syndrome, which describes a hypertensive uveitis in the setting of low-lying retinal detachment. Acutely elevated intraocular pressure is another diagnostic clue with this disease state.

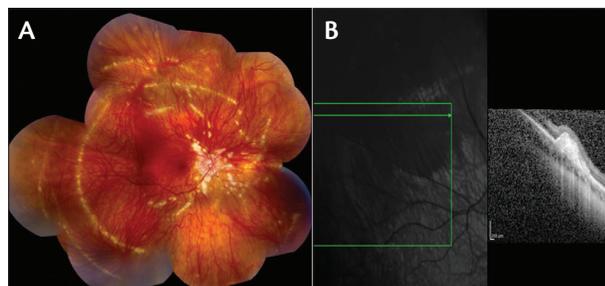


Figure 2. A 17-year-old patient presented with diffuse white track lesions evident on fundus examination and imaging (A). Further examination of the patient revealed nematodes infiltrating the subretinal space, which are seen in the image on the right (B).

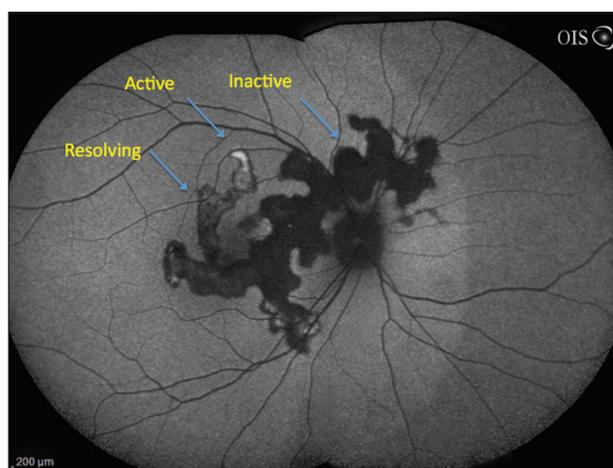


Figure 3. Fluorescein angiography may be useful for detecting autofluorescence characteristics that likely represent stages of activity in eyes with serpinginous choroidopathy.

avascular zone in diabetic macular edema was lasered and he emphasized the need for caution and care to prevent such complications.

SCIENTIFIC SESSION 4: UVEITIS

The uveitis section was conducted as an open roundtable discussion of diagnostic dilemmas. Participants included Nisha Acharya, MD; Thomas Albini, MD; Emmett Cunningham, MD, PhD; Lisa Faia, MD; John Huang, MD; Robert Wang, MD; and Steven Yeh, MD. The session consisted of case presentations and open discussion from the audience.

Case No. 1: Dr. Faia presented a case of unilateral diffuse retinal necrosis suspicious for progressive outer retinal necrosis. Dr. Albini mentioned that in cases refractory to initial management, it is important to think of masquerading diseases such as Behçet disease, syphilis, toxoplasmosis, and lymphoma. Dr. Faia stressed that one should not be afraid to perform repeat testing when initial serologies and cultures fail to yield a diagnosis. In this case, polymerase

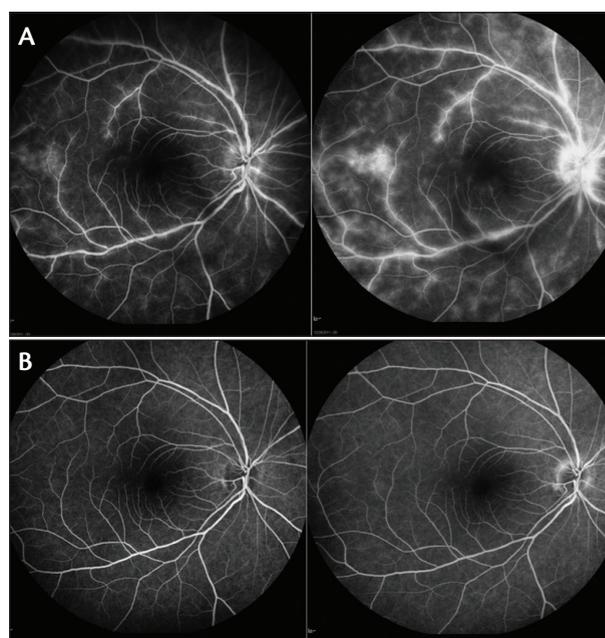


Figure 4. Fluorescein angiogram at baseline (A) and 10 weeks after injection of a dexamethasone intravitreal implant (B). Note the resolution of vascular leakage after local treatment of the vasculitis.

chain reaction (PCR) evidence eventually confirmed a diagnosis of atypical toxoplasmosis.

Case No. 2: Dr. Cunningham presented a case of chronic intermittent uveitis. An optical coherence tomography (OCT) image showed a superior retinal detachment with superficial crystals (Figure 1). Given the elevated intraocular pressure, the constellation of findings was consistent with Schwartz-Matsuo syndrome.

Case No. 3: Dr. Cunningham reviewed a case of unilateral cotton wool spots, retinal hemorrhages, and mild periphlebitis. Dr. Albini commented that there may be some mild tortuosity to the retinal vasculature apparent on imaging. An OCT image confirmed hyperreflective bands in the inner nuclear layer, which, together with other findings,

suggested a diagnosis of mild central retinal vein occlusion, according to Dr. Cunningham.

Case No. 4: Dr. Acharya presented a case of unilateral white track lesions throughout the fundus (Figure 2). An audience member suggested a diagnosis of diffuse unilateral subacute neuroretinitis, while Dr. Cunningham mentioned the possibilities of multifocal choroiditis, panuveitis, and presumed ocular histoplasmosis syndrome. Dr. Acharya then showed a video of multiple organisms moving through the fundus on infrared imaging. Infrared imaging can provide a high contrast background for viewing motile nematodes, he said.

Case No. 5: Dr. Yeh presented a case of a patient with serpiginous choroidopathy who did not respond to immunosuppressive therapy. The panel discussed the difficulties in identifying areas of active disease. Dr. Yeh recommended using autofluorescence to help distinguish stages of activity, noting that hyperautofluorescence may indicate dead or dying photoreceptors (Figure 3). He also noted that indocyanine green angiography is often useful for identifying choroidal perfusion defects that are slightly larger than the area of hyperautofluorescence.

Case No. 6: Dr. Huang presented a case of unilateral disc swelling. Dr. Cunningham stressed the importance of checking systemic blood pressure in all patients with disc swelling. A fluorescein angiogram confirmed optic disc leakage. There was also mild juxtapapillary subretinal fluid with foveal cysts. The panel and audience offered a differential diagnosis of neuroretinitis, infiltrative processes, and optic neuritis. After a magnetic resonance image showed an enhancing central nervous system lesion, the presumptive diagnosis was neurosarcoïd. A discussion started among the audience members regarding methotrexate versus mycophenolate mofetil (Cellcept, Roche) for the treatment of posterior uveitis. At the conclusion of the presentation, Dr. Cunningham stated that he would still be concerned about lymphoma in a patient with a similar presentation.

Case No. 7: Dr. Acharya presented a case involving a patient with significant reduction of vision, cystoid macular edema, mild vitritis, and intraretinal precipitates. There was a history of intermediate uveitis with persistent macular edema. The differential diagnosis included Behçet disease, sarcoid, tuberculosis, lupus, and syphilis. Serology testing revealed positive to rapid plasma reagin; fluorescent treponemal antibody absorption; and T pallidum IgG and IgM positive. A fundus examination revealed classic posterior necrotizing retinitis. It was later revealed that the patient had received intravitreal triamcinolone 2 weeks prior to the episode of vision loss. In this case, the retinal infiltrates were unmasked by the intravitreal triamcinolone. It was proposed but not accepted universally that any adult with intermediate uveitis should have syphilis testing.

"[The patient] received a varicella vaccine (Varivax, Merck) 3 months prior to the onset of ocular symptoms. ... It was stressed that immunocomprised patients should not receive a live vaccine."

Case No. 8: Dr. Albin presented a case of retinal vasculitis treated with mycophenolate mofetil and oral steroids. Any attempt to taper the steroids in this case resulted in recurrence. The treatment options discussed included: (1) continue prednisone 20 mg; (2) increase the prednisone dose to 30 mg; (3) increase the mycophenolate dose; or (4) add a tumor necrosis factor blocking agent. Ultimately, Dr. Albin treated with intravitreal steroids, specifically a dexamethasone intravitreal implant (Ozurdex, Allergan), in addition to continuing mycophenolate. Ten weeks later, a fluorescein angiogram confirmed that the vascular leakage had resolved (Figure 4). The importance of local treatment for vascular hyperpermeability was stressed.

Case No. 9: Dr. Wang presented a case of a patient with retinal detachment in the setting of acute retinal necrosis (ARN). A primary vitrectomy for ARN as prophylaxis for retinal detachment was raised as a treatment strategy. The presenter suggested that this should be considered because 70% of such cases develop retinal detachment without intervention. Dr. Wang proposed primary pars plana vitrectomy and laser with use of foscarnet/ganciclovir and a dexamethasone injection. Dr. Wang noted that in a series of patients undergoing treatment using this approach, only 5 of 13 (38%) developed detachment after primary vitrectomy.

Case No. 10: Dr. Archarya presented a case of a 20-year-old man from Cambodia. He had a history of inflammatory bowel disease on infliximab, methotrexate, and prednisone. He presented with necrotizing retinitis in the right eye with minimal vitritis. There was only mild vitreous haze in the left eye. A tap and inject was done in the right eye with foscarnet. PCR testing revealed him to be positive for varicella zoster virus. He had received a varicella vaccine (Varivax, Merck) 3 months prior to the onset of ocular symptoms. It is important to remember that Varivax is a live, attenuated vaccine from the Oka strain. It was stressed that immunocomprised patients should not receive a live vaccine. One should consider infection in uveitis patients on immunosuppressive therapy. ■