Editor-in-chief: Paul Walia, MD

the LIGHT PIPE

Fall 2020

Oculocutaneous albinism

IN THIS ISSUE:

THE NEWSLETTER OF

GEORGIA RETINA

25 Years of Service Excellence

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Practice News

Letter from the Editor:

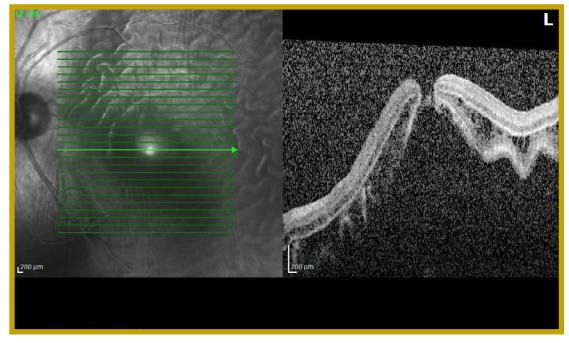
Dr. Paul S. Walia

We all survived another hot Georgia summer, but this summer was indeed different from those of years past. In addition to beating the heat, we had to navigate a new path during the COVID-19 pandemic. From distance learning to personal protective equipment, there were so many facets of our personal and professional lives that were impacted.

Most importantly, we all got through it together. It has been humbling to know we practice in an eyecare community that was able to coalesce and continue to provide excellent care to our patients during the pandemic. All of us became eyecare providers because of our passion to help others' eyesight. Vision is essential and we, as an eyecare community, have all worked through unprecedented challenges to advocate and care for our patients. All of the doctors at Georgia Retina are proud to have contributed. We appreciate your tireless efforts in patient care and are proud to have you as colleagues.

Thank you, as always, for entrusting Georgia Retina with the retinal care of your patients. We continue to take all the necessary precautions to provide safe and excellent care for them. It is our privilege and honor to take care of your patients. We hope that everyone has a pleasant fall and takes time to enjoy the refreshingly cool weather. We look forward to seeing everyone in person soon.

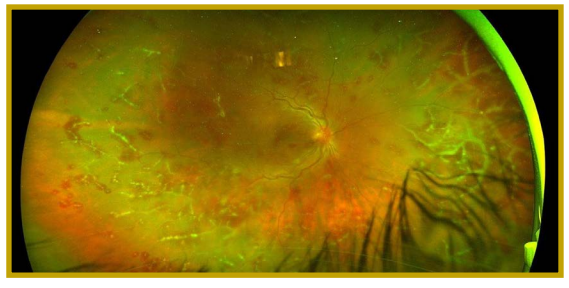
Imaging Corner



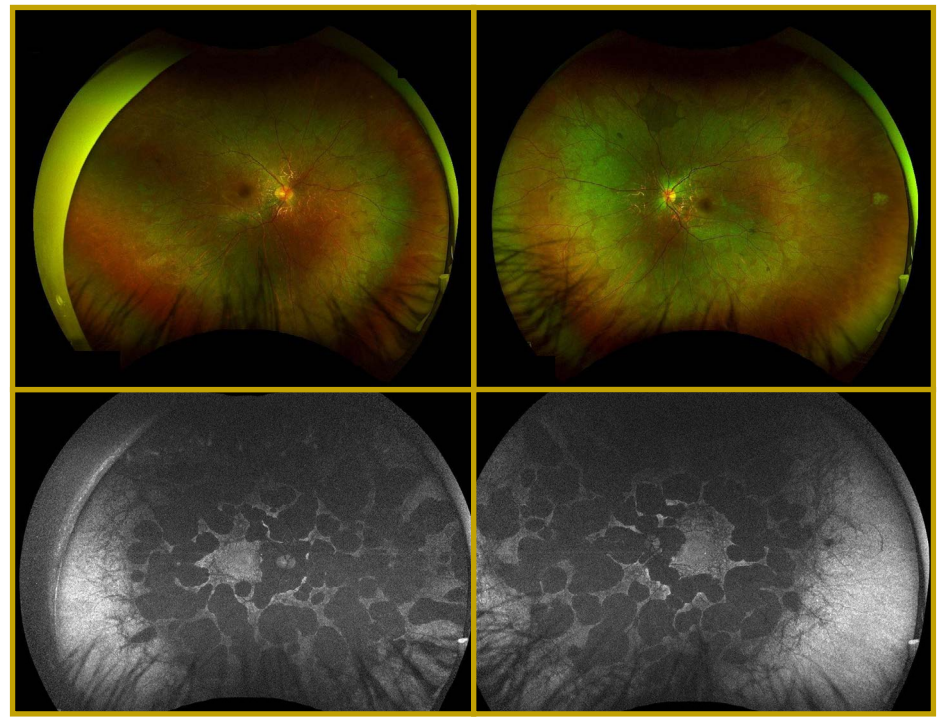
OCT showing a macular hole in a retinal detachment

Fluorescein angiogram of extensive neovascularization in Proliferative Diabetic Retinopathy

Retinal detachment with multiple and large retinal holes



Extensive retinal vasculitis in an asymptomatic patient with Sjogren's syndrome



A patient with Gyrate Atrophy. Photos show symmetric patchy circular areas of chorioretinal atrophy that correlate to hypoautofluorescent images

Practice News: Dr. Komati joins Georgia Retina

We are very excited to announce that Dr. Rahul Komati has joined Georgia Retina. Dr. Komati was born and raised in the California Bay Area. His career in medicine began when he enrolled in an accelerated medical program. He earned a bachelor's degree from Penn State University, and a medical degree from Jefferson Medical College in Philadelphia where he was a member of the Hobart Amory Hare Honor Society.

Dr. Komati completed his residency at Henry Ford Hospital in Detroit, Michigan where he served as Chief Resident in his final year and was awarded the David Barsky Research Award. He then completed a two-year vitreoretinal surgery fellowship at the prestigious University of Chicago.

Dr. Komati became a physician because he wanted a career where he could develop meaningful, lasting relationships with people and positively impact their lives. He was drawn to ophthalmology because of the cutting-edge technology and science inherent to eye surgery. Dr. Komati aims to help patients understand their eye conditions to maximize their vision and health.

In addition to authoring numerous peer-reviewed publications in professional journals, Dr. Komati has presented research at national and international conferences. He is board-certified and participates in numerous professional organizations such as the American Academy of Ophthalmology, American Society of Retina Surgeons, and the Association for Research in Vision and Ophthalmology.

In his spare time, Dr. Komati enjoys traveling, learning about new cultures and cuisines, and spending time with his wife and dog.

Dr. Komati will be practicing at our Macon and Stockbridge locations.

Practice News: Dr. Jacobson to focus on Tucker location

Georgia Retina is proud to continue our growth so that we can better serve the needs of our referral doctors and our patients. Specifically, we want to broaden the care provided at our Stockbridge office. To that end, we have recruited a topflight retinal specialist, Dr. Rahul Komati, who will join us in September.

To further accomplish this goal of allowing Georgia Retina to grow, Dr. Michael Jacobson will concentrate his efforts more at our Tucker office. We are glad that both our new and existing patients served at this location will also benefit from the additional attention. Dr. Jacobson remains committed to providing the best medical and surgical care to our patients at Georgia Retina.

Study Update

Georgia Retina has a long tradition of commitment to and participation in clinical trials to provide our patients with access to state-of-the-art preventative or therapeutic treatments. We partner with the National Eye Institute, some of the nation's top pharmaceutical companies, and other clinical practices to explore the causes and cures for many retinal conditions.

We take special care to ensure that our study patients experience the best medical care possible. This past year we have been active in ten clinical trials for wet age-related macular degeneration, geographic atrophy secondary to dry age-related macular degeneration, retinal vein occlusion, diabetic macular edema, and non-proliferative diabetic retinopathy.

We hope that as you consider where to refer your patients for retinal care, you will keep in mind that Georgia Retina not only provides exceptional care but can also offer your patients the opportunity to enroll in clinical trials thereby offering them new vision-saving treatments. If you have any questions about whether your patient might be eligible to participate in one of our ongoing clinical trials, please call any one of our doctors or contact our research coordinator, Leslie Marcus (lmarcus@garetina.com).

Current Recruiting Clinical Trials:

We are currently participating in trials for:

- Wet AMD: Xbrane XBR 1001 XPLORE, Graybug GBV-102-002 ALTISSIMO
- Geographic Atrophy: Genentech GR40973 Gallego, Apeliis APL2-303 DERBY, Gyroscope Therapeutics GTSCOPE, Geminin GEM-NH-001/002 CLARITY
- Diabetic Macular Edema: Novartis CRTH258B2305 KINGFISHER, Genentech GR40550 PAGODA PDS
- Diabetic Retinopathy: Novo Nordisk NN9535-4352

Spotlight with a Georgia Retina Doctor: Dr. Sean Koh

In this edition, we are fortunate to sit down for an interview with Dr. Sean Koh. In addition to being a highly-skilled clinician and surgeon, Dr. Koh is our "tech expert." He is usually our first point of contact when we have questions with our electronic medical record, computers, or any gadget for that matter! Dr. Koh practices in the Cumming and Gwinnett/ Lawrenceville offices.

Lightpipe: What has changed the most since you have started practice?

Dr. Koh: When I started my retina fellowship at Harvard Medical School/ Massachusetts Eye and Ear Infirmary in 2002, the photodynamic therapy with Visudyne was the gold standard treatment for neovascular AMD with subfoveal CNV. It involved labor-intensive preparation with intravenous injection of Visudyne over 10 minutes, which then traveled through the bloodstream to the abnormal CNV under the retina. Fifteen minutes after the start of the infusion, a spectrum of red light was delivered over 90 seconds to the lesion. The patient was then told to avoid exposure of skin and eyes to direct sunlight or bright indoor light for five days after treatment by wearing protective clothes and dark sunglasses. The visual result was still mediocre at best: 60% of PDT patients still lost about 3 lines of visual acuity from baseline.

Soon after I joined Georgia Retina in 2004, anti-VEGF injection became the new first-line therapy for neovascular AMD with subfoveal CNV. We can now preserve our patients' baseline vision in the majority of cases and improve their visual acuity by three lines or more in one-third of the cases!

Lightpipe: You were one of the first doctors working at Gwinnett and Cumming offices when they were open in 2004 and 2008, respectively. How did you build your patient base when you started?

Dr. Koh: For a retina specialist, establishing a great relationship with our referring doctors is crucial. I thought visiting referring doctor's offices and introducing myself in person was the most crucial thing. Usually, I would visit them on the weekend, and in some cases, I would drop by during lunch breaks

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Spotlight with a Georgia Retina Doctor:
Dr. Sean Koh

and after clinic on weekdays. In my opinion, this face-to-face opportunity is important in building long term relationships within the eyecare community.

Lightpipe: This is your 16th year working at Georgia Retina. What advice would you give to the new Retina doctors for embarking upon a successful career?
Dr. Koh: Always focus on the best care for your patients. This is the most important thing in practice. Our best marketing is the care we provide to patients who are referred to Georgia Retina. When a happy patient goes back to the referring doctor praising you for excellent care, that doctor will be very grateful for your care. Do not forget to treat your Georgia Retina partners like your family as well.

Lightpipe: What do you miss the during the COVID-19 pandemic?
Dr. Koh: I miss traveling a lot!

Lightpipe: Where would you travel next when the opportunity arises?
Dr. Koh: My entire family usually goes to Seoul, Korea every summer to visit our elderly parents. I could not go this year due to the pandemic. I will go and visit them first for sure. I miss them so much, and I miss homemade Kimchi from my mom.

Clinical Care Discussion: Toxoplasmosis: Diagnosis and Management

Dr. Yogin Patel

Toxoplasmosis gondii remains the most common cause of infectious chorioretinitis worldwide and is a significant cause of vision loss for many patients. The disease is caused by a single-celled protozoan carried by multiple animal vectors. It exists in three forms. First is the oocyst which is found in soil. Second is the tachyzoite, which is the infectious form. And finally, the tissue cyst is a latent form found in animal tissues post inoculation and infection. This dormant cyst is capable of reactivation and recurrence of active infection. The organism is found worldwide, but infection is more common in tropical regions and is relatively less frequent in dry cool climates. The incidence of ocular disease varies from around 2% in the US to 17.7% in Brazil and up to 43% in Africa. There are also differences thought to exist among serotypes, with disease in Latin America thought to be more severe and North American serotypes thought to be less aggressive.

The traditional risk factors for infection are thought to be exposure to cats, which are considered to be the definitive host for the parasite, and eating raw or undercooked meat. The ingestion of the parasite leads to infection that can cause a necrotizing retinochoroiditis and vasculitis. In addition to ocular findings, infection can result in flu-like illness in healthy adults. Alternatively, if maternal-fetal transmission occurs, the mother may experience a miscarriage or deliver a child with congenital toxoplasmosis. Congenital toxoplasmosis is characterized by low birth weight, jaundice, craniocephalic abnormalities, intracranial calcifications, seizures, hearing and vision loss, and motor and developmental delays, among other problems. In the immunocompromised host, the parasite can lead to fever, confusion, headaches, seizures, nausea, and poor coordination from cyst formation within the brain.

Ocular disease manifests with a classic retinal whitening, often adjacent to a previous scar. The scar is thought to be an old nidus of infection with inactive cysts that can reactivate causing disease. Active infection is also usually associated with significant vitritis resulting in the classic “headlight in a fog” finding. A retinal vasculitis, more often affecting arterioles and possibly forming Kyrieleis plaques is another common finding. Patients can also suffer from iridocyclitis with or without

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Clinical Care Discussion: Toxoplasmosis: Diagnosis and Management

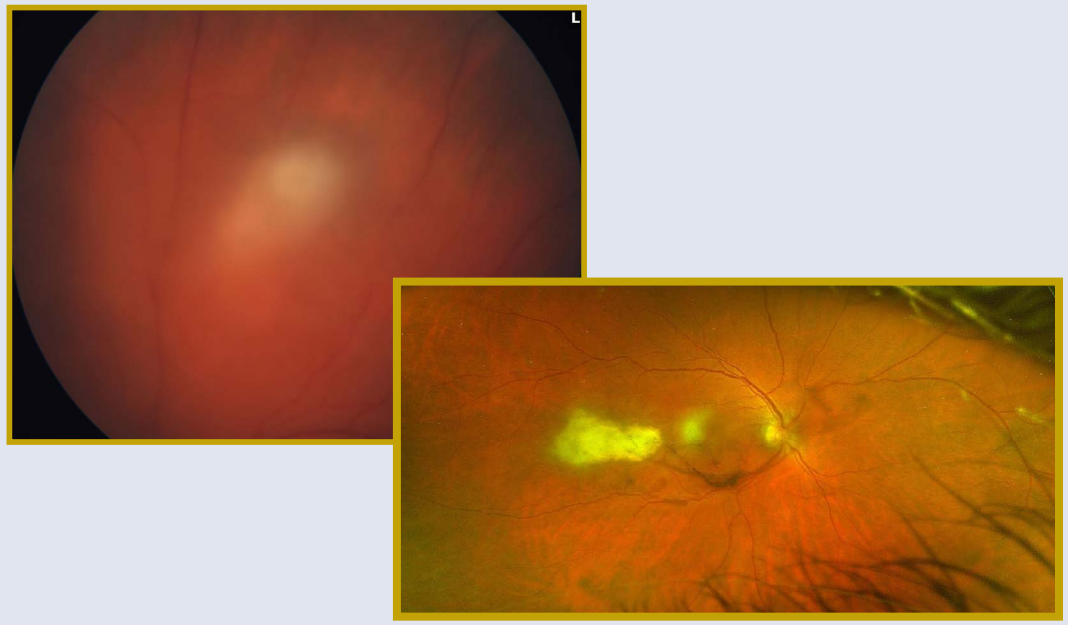
granulomatous or stellate keratic precipitates and inflammatory ocular hypertension. Symptoms usually center around vision changes including blurring, floaters, and rarely pain from cyclitis.

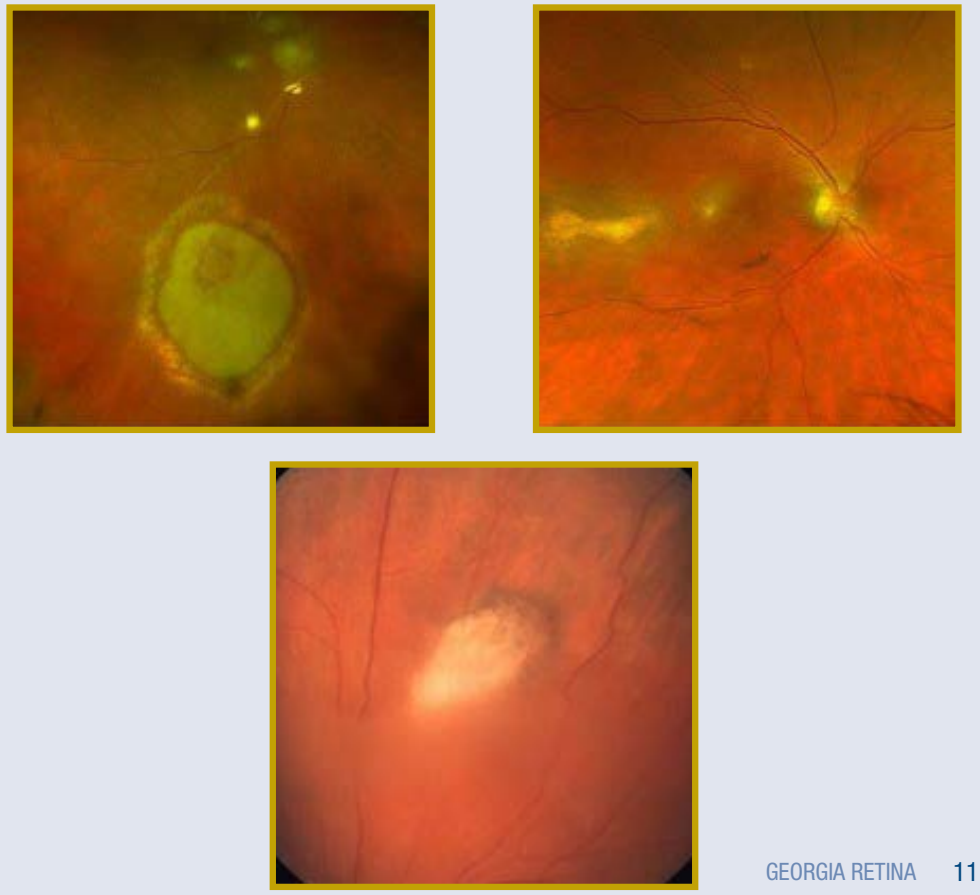
Diagnosis is centered around recognition of the clinical presentation and can be supplemented by testing for systemic antibodies or polymerase chain reaction testing of aqueous or vitreous samples. Serum antibody positivity can be as high as 70% among asymptomatic people in the United States, but often with infection one can find a significant spike in antibody levels well above normal positivity. Also, the absence of IgG positivity excludes the diagnosis. Other disease entities to consider include tuberculosis, viral retinitis, toxocariasis, bartonella, syphilis, Behcet's disease, and other forms of autoimmune retinal vasculitis.

Treatment is not always warranted unless there is a macular threatening lesion or significant visual symptoms. Also, special consideration should be taken in pregnant, immunosuppressed, or monocular patients. The classic triple therapy is a cocktail of pyrimethamine, sulfadiazine, and corticosteroids. Given the relative difficulty and cost associated with these medications, many alternatives have been found to be effective in treatment. Systemic or intravitreal clindamycin has great activity against infection. Systemic azithromycin and Bactrim have also shown to be very effective. And steroid therapy is often helpful in reducing inflammation after initiation of antibiotic therapy. The therapy of this infection is almost entirely medical unless complicated by retinal detachment or other surgery necessitating problems.

Vision prognosis is all dependent upon the severity of the initial presentation and involvement of the macula. Recurrences can occur and long-term follow-up is recommended. Current treatment usually requires systemic antibiotics for around six weeks. In a recent study published in Brazil, a region where reactivation of infection is known to happen much more often than in the United States, long term treatment of patients with low dose Bactrim was shown to significantly reduce the rate of recurrent disease. In this study, the most effective treatment regimen included Bactrim regular strength 1 tabled BID for six weeks followed by one tablet daily for the remainder of a year. Treatment of systemic disease and cysts is thought to reduce disease recurrence. Given how well the medication is tolerated amongst most patients barring sulfa allergy, the therapy may be worth considering. A thorough discussion with patients is warranted given the risk of future vision-threatening episodes.

These are pictures showing typical presentations as well as post-treatment results of three patients with pre and post-treatment images. Note the relative out of focus appearance of pre-treatment photos stemming from vitreous inflammation obscuring the retinal lesion. Also, note the retinal arterial vasculitis. Finally, note the clarity of post-treatment photos as vitreous inflammation improves, and the distinct lesion borders are noted to form as the lesion scars.





Thank you for reading our Fall 2020 Light Pipe Newsletter!

If you have time, please take a moment to answer a few questions about this year's publication.

By doing so, you're helping Georgia Retina become an even better practice.

Click here to begin: https://forms.gle/C2CQNrSyTKytLdE87

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BCBS of Georgia
Beech Street
Blue Choice
CCN PPO
Choice Care Network
Cigna
Coventry Healthcare
Evolutions Healthcare System
First Health
Great-West
Humana
Medicaid
- -Peach State Medicaid
- -Wellcare Medicaid
- -Amerigroup Medicaid

Medical Resource Network Medicare
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Other plans are pending; please call to check specific participation.

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