



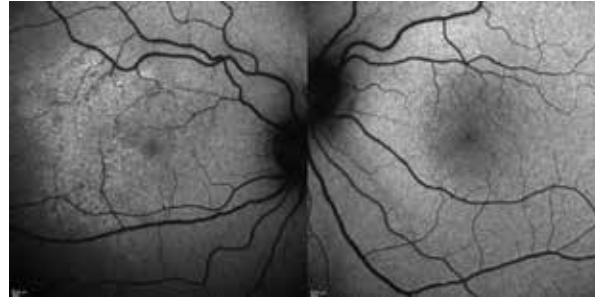
# THE RETINA TIMES

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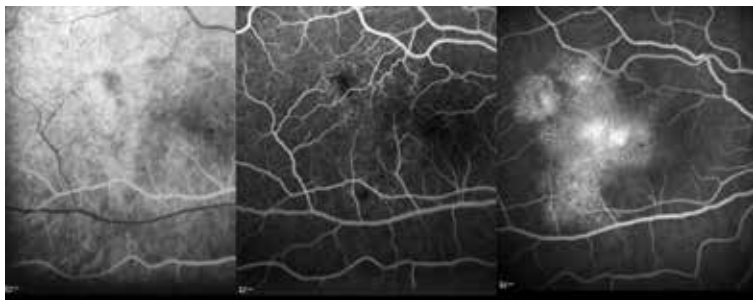
## CASE STUDY



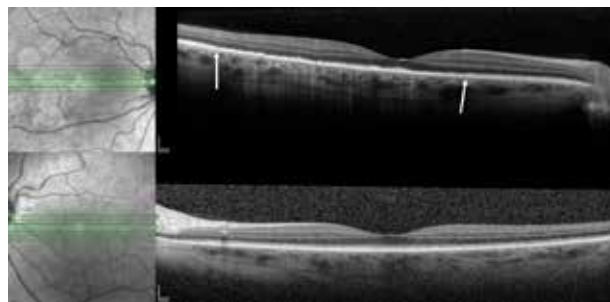
**Figure 1.** Right eye showing deep chorioretinal creamy changes in the central and temporal macula. Left eye normal.



**Figure 2.** Autofluorescence images showing fine stippled hyper- and hypoautofluorescence temporally in the right eye. Left eye is normal.



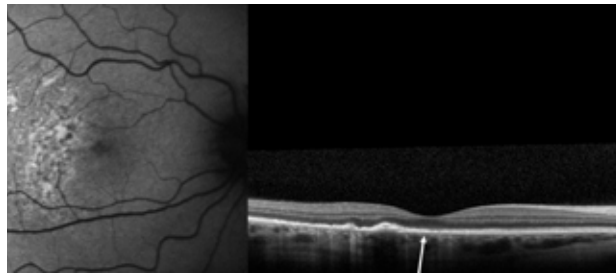
**Figure 3.** Fluorescein angiogram of the right eye, showing early mottled fluorescence, with late leak in the temporal macula.



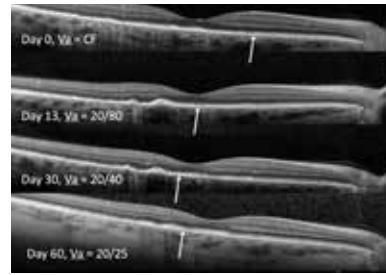
**Figure 4.** Top image is high definition OCT of the right eye, showing disruption of ellipsoid zone between the arrows. Ellipsoid zone loss in central macula is cause of poor vision. Bottom image is normal left eye.



**Figure 5.** Desquamating rash of hands.



**Figure 6.** Images of right eye after recovery. Note smaller discrete hyper- and hypofluorescence temporal to the macula, as well as partial restoration of the ellipsoid zone under the central fovea (arrow).



**Figure 7.** Sequential high definition OCT images showing progressive restoration of the ellipsoid zone, with corresponding improvement in vision.

A 37 year old nurse noticed a painless decrease in vision in her right eye 5 days before presentation. She lost vision over a 24 hour period, and the loss was constant and worsening since she first noticed it. She was a telemetry monitoring nurse at the hospital, and she noticed the loss primarily in her central vision. She was sent to Retina Associates of Kentucky by her eye doctor for a retinal evaluation.

On examination, her vision in the right eye was Count Fingers at 1 foot, and 20/20 in the left eye. The anterior segment of both eyes was normal. The fundus exam in the right eye showed a creamy flat disruption of the deep retina tissues and RPE in the central and paracentral area. (Figure 1). There was no blood, retinal thickening or edema. Autofluorescence images (Figure 2) showed a stippled granular pattern of hyper-autofluorescence in the central and near temporal macula, consistent with inflammation of the RPE. Fluorescein angiography (Figure 3) was performed, which showed minimal early hyperfluorescence, but

late significant leakage into the lesion. Optical Coherence Tomography (OCT) was used to examine the lesion (Figure 4), and it revealed no retinal edema, but disruption of the ellipsoid zone, the deep retinal layer corresponding to retinal rods and cones, through the central macula.

Her findings were consistent with a flat, or placoid focal chorioretinitis in the macula. These conditions can be either inflammatory or infectious, and can be seen in patients of all ages. (reference 1) Further questioning and examination of this patient revealed that she was recovering from a case of Hand Foot and Mouth Disease (HFMD) she acquired from her young nephew (Figure 5). When her hands and feet started showing signs of the disease 9 days earlier, she was started on oral prednisone, 40 mg a day, by her internist. When her vision began blurring 5 days prior to presentation, she stopped the prednisone, thinking it had caused her vision changes.

Based on her clinical findings, she was diagnosed with Coxsackie maculopathy.

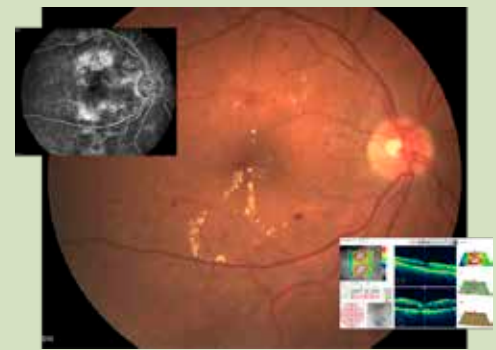
The Coxsackie virus, one of the enteroviruses, is the causative agent in HFMD, typically a benign, self limited rash of the hands, feet and the inside of the mouth that is found in children and is highly contagious. The virus has also been reported to cause conjunctivitis and uveitis. There are 12 reported cases of macular chorioretinitis associated with Coxsackie virus, most of them in patients in their 30s. (reference 1)

We started our patient on oral prednisone, 60 mg a day. Thirteen days later, her vision improved to 20/80, and her images were improving, with early restoration of the ellipsoid zone on OCT, and retraction of the autofluorescent stippling to the temporal macula (Figure 6). Over the next two months, she was tapered off oral steroids and her ellipsoid zone progressively improved (Figure 7). Her vision recovered to 20/25 and she was able to return to work.

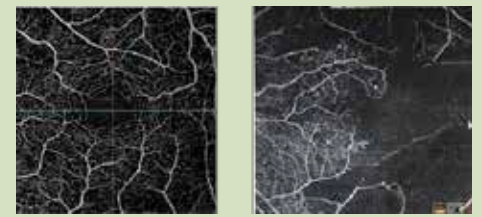
### Reference

Agrawal et al. *Journal of Ophthalmic Inflammation and Infection* (2015) 5:2 DOI 10.1186/s12348-015-0034-3

## NOVEMBER IS DIABETES AWARENESS MONTH



Patient with Diabetic Macular Edema, seen on color photo, as well as fluorescein angiography (upper inset), and OCT (lower inset).



OCT Angiography, showing normal appearance on the left, and ischemic retina with loss of macular vessels and poor vision from diabetic retinopathy, on the right.



Proliferative diabetic retinopathy with superotemporal tractional retinal detachment.

HAPPY  
*Thanksgiving*  
from your friends at  
RETINA ASSOCIATES  
OF KENTUCKY





## VITREORETINAL SURGERY IN DANVILLE IS A BIG SUCCESS WITH NGENUITY 3D VISUALIZATION SYSTEM

Teamwork and dedication combined have brought state of the art surgery to our patients in Danville. Thanks to our colleagues at Central Kentucky Surgery Center for helping us to realize this goal.



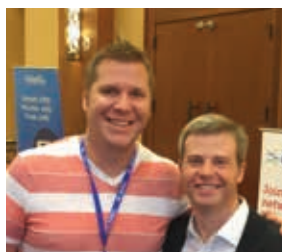
## FALL KOA MEETING LOUISVILLE



(left) Dr. McClanahan  
(right) Dr. R. Isernhagen



(left) Dr. Findley  
(right) Dr. Stone



(left) Dr. Klosterman  
(right) Dr. B. Isernhagen



Drs. R. Isernhagen, Purkiss, Kitchens, Stone & B. Isernhagen

## WHAT'S HAPPENING

**OCT 18 2018**

Lexington Eye Opening Symposium  
Dr. Shirkey presenting

**NOV 6 2018**

CE  
Kentucky Horse Park  
(3 Credit Hours)

**JAN 24 2019**

CE  
Jeptha Creed Distillery  
(3 Credit Hours)

## RESEARCH

If you are interested in information regarding past clinical trials or participation criteria in our current clinical trials, please contact our research department:

**Diana Holcomb** - Clinical Research Manager **PH (859) 264-2905** | [dholcomb@retinaky.com](mailto:dholcomb@retinaky.com)

### MAIN OFFICES

**Lexington**  
120 N. Eagle Creek Drive, Suite 500  
Lexington, KY 40509

**Louisville**  
6420 Dutchmans Parkway, Suite 70  
Louisville, KY 40205

**Ashland**  
2841 Lexington Avenue  
Ashland, KY 41101

### OUR OTHER LOCATIONS

Bardstown  
Danville  
Frankfort  
London  
Prestonsburg  
Richmond  
Shelbyville  
Somerset

## EDUCATION

We at Retina Associates of Kentucky are dedicated to providing a progressive, education-rich work environment for our team. We aim to consistently strengthen and expand the knowledge of our technicians and photographers through monthly training sessions. We also provide educational opportunities throughout the year for our physician colleagues in eye care through continuing education dinner programs. In this educational mission we support others who bring exceptional ophthalmic educational opportunities to our region. Regeneron Pharmaceuticals recently hosted a dinner program in Louisville with renowned guest speaker, Dilsher Dhoot, MD, of California Retina. A BIG thank you to Dr. Dhoot for bringing his retinal experience and expertise to the Bluegrass!



Drs. Stone, Dhoot & Purkiss



From left to right: Christina, Kristin, Mary, Keondra, Emily, Shannon & Cher

## AWARDS & RECOGNITION

Retina Associates proudly spotlights our Awards & Recognition program, honoring team members who go the extra mile to provide unparalleled care to our patients! We appreciate and recognize our staff members who have been nominated by their peers for their dedication and care.

### TAG TEAM



Courtney

### 5 YEARS OF SERVICE



Ashley

### ALL STAR



Carrie



Sherry



Krista

## RAK PHYSICIAN RETREAT 2018



From left to right: Drs. Purkiss, Garcia, Wood, Kitchens, Stone, R. Isernhagen, B. Isernhagen & Shirkey

### OUR PHYSICIANS

William J. Wood, MD  
Rick D. Isernhagen, MD  
Thomas W. Stone, MD  
John W. Kitchens, MD  
Todd J. Purkiss, MD, PhD  
Belinda L. Shirkey, MD  
Sheila Garcia Santana, MD  
Blake A. Isernhagen, MD

