Financial Disclosures

I have nothing to disclose
Pattern Recognition
Once you know the pattern, it’s easier to recognize the disease
You see what you know

The more you know, the more you see

Optical Coherence Tomography
Diagnoses?

What if you don’t know the pattern?

Courtesy of Christine Curcio, PhD

Normal OCT

You have to count the layers

Case One
Severe Fibrinous CSR

Transplant patient on prednisone

26 year old pregnant woman

The central leak has a geyser-like effect, blowing the fibrin out of the way

Batman Sign
Fibrinous CSR
Case Two

Hemorrhage, perivenular whitening, cotton wool spot associated with non ischemic CRVO

SD-OCT

Intraretinal and subretinal fluid

5/200

Patchy INL hyper-reflectivity caused by Deep retinal capillary ischemia

En Face OCT through the INL reveals perivenular hyper-reflectivity associated with the ischemia
Paracentral acute middle maculopathy (PAMM): a new variant of acute macular neuroretinopathy associated with retinal capillary ischemia.

PAMM is deep capillary ischemia, which is thought to represent a variant of AMN.

Multimodal imaging findings in retinal deep capillary ischemia.

PAMM is found in other ischemic etiologies, similar to that seen in our CRVO case.

Subretinal fluid with fibrin layer and possibly photoreceptor outer segments.

Eyes with ocular toxoplasmosis may present with HORCS (Huge Outer Retinal Cystoid Space).

Evaluation of cystoid change phenotypes in Ocular Toxoplasmosis using optical coherence tomography.
HORCS?
(Huge Outer Retinal Cystoid Space)
Really, follow the ELM!

The inflammatory process results in exuberant SRF formation causing photoreceptor delamination. The regeneration of PROS may act like a crystal and may be a scaffold for fibrin deposition, resulting in “teeth.”

Case Four

Optical Coherence Tomography
The OCT appears similar in both eyes.

If you don’t know the pattern, you must count the layers!
What’s going on?

Dull gray Inner Plexiform Layer
Bright Nerve Fiber Layer

Our patient has no nerve fiber layer!

Our Patient

Bright Inner Plexiform Layer
NO Nerve Fiber Layer

Pituitary Tumor!

Tumor resected
Vision improved to 20/40

Inspector: is there any point to which you wish to draw my attention?
Gregory: To the curious incident of the dog in the night-time.
Holmes: The dog did nothing in the night-time.
Holmes: That was the curious incident.
It’s not always what’s there that is the problem
   It may be what’s not there

Normal

Our Patient

Dog Not Barking Sign!

Some Dumb Name Sign
Pattern Recognition in the OCT Era

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