Acute Syphilitic Posterior Placoid Chorioretinopathy
Taylor Chesnut, OD

A patient with recent reactive syphilis panel presents with sudden decreased vision in one eye with pillar like macular OCT lesions and leopard spotting on fluorescein angiography.

CASE HISTORY: 62 year old Caucasian male
Chief complaint: Intermittent rectangular strobaling light OU x 5-6 days lasting 1-2 hours. Worsening vision OD with superior central scotoma.

Ocular History:
- High myopia OU
- EKC OD>OS - resolved

Medical History:
- Borderline HTN
- HIV
- Hepatitis A and B Virus
- Depression
- Leukocytoclastic vasculitis
- Factor VIII deficiency
- Erectile dysfunction
- Episodic Atrial fibrillation
- Autoimmune colitis

Medications:
- Bupropion HCL, Dilitiazem, Genvoya, Hydrochlorothiazide, Lamotrigine, Sildenafil, Multivitamin

Recent lab testing by Infectious Disease:
- CD4: 771
- RPR: 128
- Quantiferon gold: negative
- HIV PCR quant: <20
- Syphilis CIA: Reactive

BCVA: OD: 20/50 PHNI OS: 20/20
Pupils, EOMS, CVF: NL
Anterior Segment: WNL (-)cell/flare
Posterior Segment
- Lens: 1+ NS OD, OS
- Vitreous: PVD OD, OS
- Cup/Disc: 0.3 V/H (-) edema OD, OS
- Vessels: 1+ AV nicking OD, OS
- Macula: OD: fine, small, yellow drusen-like deep retinal lesions OS:NL
- Periphery: mild lattice OD, OS

Amsler grid: OD: 5x5 relative defect superior to visual axis OS: NL
HVF 10-2: OD: Relative superior temporal defect OS: NL
Macular OCT: OD: RPE pillar like elevations with IS/OS junction loss OS: NL
FA: OD: no staining or leakage. Leopard spotting noted. OS: NL

Differential Diagnosis:
- Acute Syphilitic Posterior Placoid Chorioretinopathy
- Acute multifocal placoid pigment epitheliopathy
- Persistent placoid maculopathy
- Relentless placoid chorioretinitis
- Sarcoidosis
- Posterior uveitis
- Dry ARMD
- Multifocal choroiditis
- Tuberculosis

Assessment and Plan
Dx ASPPC/likely neurosyphilis
- Refer to Infectious Disease and Neurology, admitted for treatment of neurosyphilis
- Lumbar puncture for CSF testing: Lymphocytosis, VDRL: reactive

Diagnosis and Discussion
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- ASPPC is a variant of syphilitic chorioretinitis characterized by one or more large, deep, yellowish, circular or oval placoid lesions involving the posterior pole.¹
- ASPPC is thought to be result of inflammatory reaction at the level of the choriocapillaris-RPE-retinal photoreceptor complex causing drusen-like lesions.²
- Improvement of vision and outer retinal abnormalities seen in 93.3% after treatment.³
- Median age when HIV coinfection is 37, median age when HIV negative is 66.⁴

**Ocular manifestations of and associated with ASPPC:**²
- Placoid, yellow outer retinal lesions.
- Focal, yellow, deep retinal lesions.
- Anterior uveitis, vitritis, iritis, necrotizing retinitis.
- Macular neurosensory retinal detachment with exudates.
- Optic disk edema or pallor.

**Diagnostic testing**

**Physical exam**

**Lab testing:** Trep+nontrep specific tests

**Macular OCT:** Loss of IS/OS and OS/RPE bands with prominent nodular elevations of RPE

**IVFA**

**HVF**

**Fundus autofluorescence:** Early phase FA shows “leopard spotting”: hypofluorescence or faint hyperfluorescence with scattered hypofluorescent spots in the area of yellow opacifications.²

**Unique features**
- Infrequent but well documented ocular manifestation of syphilis without other inflammatory signs.
- HIV positive patient significantly older than the average with syphilis coinfection.
- Eye findings led to diagnosis and treatment of neurosyphilis.

**Treatment and Management**
- Testing for both neurosyphilis and HIV coinfection.
- Treatment for neurosyphilis: PCN G 18-24 million units per day for 10-14 days.¹
- Avoid use of intraocular corticosteroids in eyes with syphilitic uveitis.²

**Pertinent Findings at Follow up exam:** following 2 weeks of IV penicillin G.
- VA improved to 20/20.
- Visual field defects resolved.
- Drusen-like lesions found on Macular OCT improved.

**Conclusions:**
Important to consider ocular syphilis in immunocompromised individuals.
Anatomical changes due to syphilis in ASPPC are reversible with proper antibiotic treatment.
Very early manifestation and treatment can lead to resolution.

**Resources:**