Ocular Syphilis: Making the Diagnosis

This case report is of a rare presentation of ocular syphilis. This case involves numerous providers, including a retinal specialist and a VA hospitalist. Laboratory studies, neuro-imaging, diagnosis, and treatment are discussed.

I. Case History

- 37 yo WM presents for a routine eye exam complaining of progressively worsening uncorrected distance blur, greater in the left eye. Blur has been noted for 9-12 months. Patient reports photophobia and difficulty with TV captions and driving at night.
- Ocular history: last eye exam 10 years ago; long-standing red/green color deficiency; no ocular injuries, surgeries, or medications
- Medical history: current smoker, migraine headaches, PTSD, seizure disorder, tinnitus
- Medications: Topiramate, Venlafaxine, Cyanocobalamin, Propanolol, Levetiracetam, Gabapentin, folic acid

II. Pertinent Findings

- Clinical
  - BCVA 20/20 OD, 20/50- OS
  - EOMs and CVF normal OD and OS
  - Pupils equal, round, reactive to light and accommodation
    - (-) Argyll Robertson pupil
  - Biomicroscopy: unremarkable OD and OS
  - Fundoscopy
    - Blunted FLR OD, significant cystic macular edema OS
    - Multiple flat, white 0.5-1.0DD lesions at level of RPE and choroid scattered throughout posterior pole both eyes
    - (-) active vitritis OD, OS
    - (-) papillitis OD, OS
  - Macula OCT
  - Fundus photos
  - Fundus autofluorescence
  - Fluorescein angiography
- Physical
  - History of alcohol abuse
  - History of recreational drug use many years ago
  - Denies prior treatment for STIs
  - No new headaches, nausea, constipation
- Laboratory studies
  - MHA-TP → reactive
  - RPR → reactive
  - CBC, HLA-A29, RF, ANA, West Nile, quantiferon gold, TB skin test → all normal
  - HIV → non-reactive
  - Spinal tap → results pending
  - VDRL → results pending
- Radiology studies
  - Head and neck CT → normal
  - MRI of brain and orbits → normal
  - Chest X-Ray → normal
III. Differential Diagnosis
   • Infectious
     o Syphilis, tuberculosis
   • Noninfectious
     o Birdshot chorioretinopathy, multiple evanescent white dot syndrome (MEWDS), sympathetic ophthalmia, punctate inner choroidopathy
   • Primary intraocular lymphoma

IV. Diagnosis and Discussion
   • Ocular syphilis – clinical signs of bilateral chorioretinitis and cystoid macular edema
   • Ocular syphilis is known as “the great masquerader” due to its widely differing presentations that mimic that of other ocular conditions.
   • Ocular syphilis is treated as neurosyphilis.
   • This patient presents with diffuse chorioretinitis and macular edema, with no active anterior chamber or posterior chamber reaction, which is likely due to delayed presentation. This is a rare presentation of ocular syphilis.

V. Treatment and Management
   • At initial presentation, preliminary labs ordered
   • Topical ketorolac and prednisolone forte four times daily in both eyes, diagnosis pending
   • Once MHA-TP and RPR back as reactive, patient promptly admitted to the hospital for further testing.
   • Initiate empirical treatment for neurosyphilis with IV penicillin every four hours.
   • Research states that if it is indeed neurosyphilis, macular edema should begin to resolve within 7-14 days of treatment.
   • Patient will have dilated eye exams to track resolution of macular edema.
   • Bibliography:

VI. Conclusion
   • Clinical pearls
     o Syphilis must be a differential diagnosis in cases of ocular inflammation with no attributable cause.
     o Appropriate labs must be ordered to rule out causes of inflammation and to aid in arriving at a diagnosis.