ABSTRACT: This is a case of sarcoidosis-related panuveitis and cystoid macular edema (CME) resulting in unilateral loss of vision.

I. Case history
   a. 49 y/o AA Female
   b. Red, painful, and photophobic OD x 2 days
   c. PMHx: Sarcoidosis dx 2009
   d. No current systemic treatment for sarcoidosis

II. Pertinent findings
   a. Entering VA: 20/60-2, NIPH OD, 20/20 OS
   b. Fixed pupil OD; No APD OU
   c. Slit lamp exam OD; OS – normal findings
      i. 2+ diffuse injection
      ii. 4+ AC cells with hypopyon (photo)
      iii. Posterior synechiae of iris intermittently 360
   d. IOP: OD: 6mmHg, OS: 10mmHg
   e. DFE OD; OS normal findings:
      i. 3+ vitreous cell
      ii. Snowbanking; (-) vasculitis, retinitis, neovascularization (photo)
   f. OCT: CME OD
   g. (-) RPR, FTA-ABS, PPD
   h. Chest x-ray: +hilar lymphadenopathy

III. Differential diagnosis
   a. Sarcoidosis
   b. Tuberculosis
   c. Syphilis
   d. Multiple sclerosis
   e. Lyme disease
   f. Vogt Koyanagi Harada Syndrome
   g. Toxoplasmosis

IV. Diagnosis and discussion
   a. Diagnosis: Ocular sarcoidosis
   b. Most common: African Americans in the 3rd – 5th decade
   c. Unknown cause: May be triggers in genetically predisposed individuals
   d. Symptoms:
      i. Lung involvement: cough; shortness of breath; wheezing; chest discomfort
      ii. Ocular: photophobia; pain; decreased vision
   e. Ocular signs
      i. Most common: uveitis
      ii. Mutton-fat keratic precipitates; iris nodules
      iii. Trabecular meshwork nodules; peripheral anterior synechiae
      iv. Snowball vitreous opacities
      v. Multiple chorioretinal peripheral lesions
      vi. Periphlebitis; retinal macroaneurysms in an inflamed eye
      vii. Optic disc granulomas; solitary choroidal nodule
   f. Systemic signs
i. Lungs: Bilateral hilar lymphadenopathy, abnormal pulmonary function
ii. Skin lesions: erythema nodosum
iii. Heart involvement
iv. Neurosarcoidosis

g. Diagnosis
i. Definite ocular sarcoidosis
   1. Positive biopsy
   2. Compatible uveitis
ii. Presumed ocular sarcoidosis
   1. No biopsy done
   2. Compatible uveitis
   3. Bilateral hilar adenopathy
iii. Probable ocular sarcoidosis
   1. No biopsy done
   2. 3 suggestive intraocular signs
   3. 2 positive tests
   4. Negative hilar lymphadenopathy
iv. Possible ocular sarcoidosis
   1. Negative biopsy
   2. 4 suggestive intraocular signs
   3. 2 positive tests

h. Supportive studies
i. Negative PPD test
ii. Elevated serum ACE and urine calcium test OR lysozyme test
iii. Bilateral hilar lymphadenopathy via chest x-ray
iv. Abnormal liver enzymes
v. Chest CT if normal chest x-ray
vi. Biopsy from affected tissue

V. Treatment and management
a. Observation
b. Systemic treatment
   i. Corticosteroids
   ii. Immunosuppressives
c. Uveitis treatment
   i. Non-sight-threatening uveitis
      1. Topical corticosteroids
   ii. Sight threatening uveitis
      1. Topical steroids
      2. Periocular corticosteroids
   iii. Uncontrolled sight threatening uveitis
      1. Systemic steroids
      2. Methotrexate
      3. Luflunomide
      4. Azathioprine
      5. Mycophenylate
6. **Anti-TNF agents**

d. **Treatment for current patient:**
   i. **Durezol 1 drop 6 x/day OD and Atropine BID OD**
   ii. **Referral to retinal specialist for panuveitis treatment and rheumatologist for systemic evaluation; care is on-going at this time**

VI. **Conclusions**
   a. **Sarcoidosis is a common cause of ocular inflammation**
   b. **Treatment is based on topical, ocular injection, or systemic corticosteroids in most cases, but immunosuppressives may be necessary.**
   c. **Visual outcome is favorable but severe complications, including glaucoma, cystoid macular edema and choroidal neovascularization, may need a prompt and aggressive management.**

**Bibliography:**

