Retinal Imaging Conference
Presumed Ocular Histoplasmosis Syndrome

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Subjective

**HPI:** 61 year old white male presented to the retina clinic with complaint of blurry and distorted vision in the right eye that had been getting progressively worse over the past 1-2 months. No other ocular complaints.

**POH:** POHS s/p multiple Avastin injections OU

**PMH:** HTN
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<thead>
<tr>
<th></th>
<th>OD</th>
<th>OS</th>
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<tbody>
<tr>
<td>BCVA:</td>
<td>20/70</td>
<td>CF @ Face</td>
</tr>
<tr>
<td>Pupils:</td>
<td>5±3</td>
<td>5±3</td>
</tr>
<tr>
<td>IOP:</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>EOM:</td>
<td></td>
<td>Full OU</td>
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# Anterior Segment Exam

<table>
<thead>
<tr>
<th>SLE:</th>
<th>OD</th>
<th>OS</th>
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<tbody>
<tr>
<td>L/L</td>
<td>WNL</td>
<td>WNL</td>
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<tr>
<td>Conjunctiva</td>
<td>WNL</td>
<td>WNL</td>
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<tr>
<td>K</td>
<td>WNL</td>
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<tr>
<td>AC</td>
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<td>WNL</td>
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<tr>
<td>I/L</td>
<td>2+ NS</td>
<td>2+ NS</td>
</tr>
</tbody>
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DFE

OD: Disc WNL, +PPA, macular edema, subretinal heme involving the fovea, and scattered histo spots

OS: Disc WNL, +PPA, large disciform scar involving the fovea and scattered histo spots
FA OD
FA OS
Assessment

Assessment: 61 year old white male with active CNVM OD secondary to POHS

Plan: Intravitreal Avastin Injection OD
1 Month Follow-Up

S: Vision mildly improved

O: BCVA: 20/40 OD, Anterior segment: Unchanged
   DFE OD: Decreased subretinal heme and improved CME

P: Repeat intravitreal Avastin injection
Presumed Ocular Histoplasmosis Syndrome (POHS)

- Infection with the yeast *Histoplasma capsulatum* is endemic to certain areas of the United States including the Mississippi and Ohio River Valleys
- Humans inhale the fungus which is then disseminated into the bloodstream
- The systemic infection eventually subsides and leaves ocular scarring
- Most of the visual symptoms occur years after the initial infection
Presumed Ocular Histoplasmosis Syndrome (POHS)

- Four signs of POHS
  1. “punched-out” chorioretinal lesions aka “histo spots”
     - linear peripheral atrophic tracts
  2. peripapillary atrophy
  3. absence of vitritis
  4. choroidal neovascularization

- These changes are bilateral in more than 60% of patients
Presumed Ocular Histoplasmosis Syndrome (POHS)

- Treatment is only required when CNVM develops
  - Intravitreal anti-VEGF therapy
  - Photodynamic Therapy (PDT)

- Risk of vision loss in fellow eye:
  - 1% if fellow eye has no POHS findings
  - 4% if fellow eye has peripapillary atrophy
  - 25% if fellow eye has macular “histo spots”
Photodynamic therapy with verteporfin in ocular histoplasmosis

- Prospective 24 month study of 22 eyes with subfoveal CNVM secondary to POHS. Baseline vision 20/40-20/200.

- Patients underwent PDT therapy at initial visit and were followed every three months. If FA showed leaked PDT was repeated.

- Patients received an average of 3.9 treatments

- 10 patients (45%) gained 7 or more letters from baseline

- 4 patients (18%) lost 8 or more letters from baseline

- Only one patient had vision worse than 20/200

- There was absence of CNVM activity on FA in 85%

Analysis of outcomes for intravitreal bevacizumab in treatment of choroidal neovascularization secondary to ocular histoplasmosis

- Retrospective review of 117 eyes receiving Avastin monotherapy and 34 eyes receiving combination Avastin/PDT therapy
- No statistical difference in visual outcome between the two groups or average number of injections
- Avastin monotherapy group:
  - 58% final VA better than 20/40
  - 7% final VA worse than 20/200
- Combination group:
  - 50% final VA better than 20/40
  - 21% final VA worse than 20/200

References