Ocular Syphilis: New Challenges of an Old Disease

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Presented by:
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Center for STI Prevention, Maryland Department of Health and Mental Hygiene
The STD/HIV Prevention Training Center at Johns Hopkins
MedChi, the Maryland State Medical Society; and Center for a Healthy Maryland
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Presenter Disclosure:
Anne Marie Rompalo, MD, ScM, has no relevant relationships to disclose.

The planners for this activity reported they have no relevant relationships to disclose.
Learning Objectives

At the end of this presentation, attendees will:

1) Assess all patients who have syphilis, regardless of stage, for neurologic and ocular symptoms and signs
2) Recognize signs and symptoms of neurologic and ocular syphilis
3) Refer all syphilis patients with neurologic and/or ocular signs or symptoms for immediate further evaluation as recommended by DHMH
Let’s begin with some cases....
Case 1: History of Present Illness

• 33 year old man with no significant past medical history.

• Six weeks prior to admission he was diagnosed with an ear and throat infection (sore throat, tinnitus) treated with a week's course of antibiotics, symptoms never fully resolved.

• Two weeks prior to admission he developed photophobia and blurred vision. Seen at Outside Hospital ED, had a CT, diagnosed with sinusitis. He was discharged with Bactrim and told to follow-up with an ophthalmologist. He is uninsured couldn’t afford to see a doctor. Visual loss continued to progress.

• Two days prior to admission he started having worsening photophobia, a new periorbital and frontal headache and ocular pain. Visual loss had progressed to almost complete blindness. He could only tell apart shapes, and brightness from darkness. He was given money by a friend to see an ophthalmologist who referred him emergently to ED the same day.
Case 1

• ROS:
  – Worsening eczema past two months, not responding to steroid cream, typically on knuckles and knees, but now present all over
  – Weight stable

• Past Medical History
  – Eczema
  – Spontaneous pneumothorax (remote)
Social History

- Tobacco use: Smokes 1/2 pack per day x 12 years
- Alcohol use: Occasional binge drinking
- Drug use: Marijuana, no history of IVDU
- Living situation: Lives with fiancée
- Travel: No recent travel in past 5 years
- Animal exposure: None
- Insect exposure: None
- TB exposures: None
- Sexual history: Has had two female sexual partners in the past year.
- Employment: Electrician
Physical Exam

Temp: 37.1C  Heart Rate: 77  Resp: 12  BP: 94/51  O2Sat 98% RA

• General: Thin, well appearing, not distressed
• Head/Face: Moist mucous membranes with white patches on tongue
• Eyes:
  – pupils dilated, sluggish, conjunctival injection L >> R,
  – Visual acuity: left – counts fingers at 4 feet, right – counts fingers at 2 feet
  – Visual fields: Left: [Diagram]  Right: [Diagram]
• Lymph nodes: No cervical, axillary or inguinal LAD
• CVS: regular no murmurs
• Lungs: clear to auscultation
• Abdomen: soft, non tender, non distended, no organomegaly
• GU: no lesions
• Skin: hyperkeratotic scaly plaques on torso, buttocks, palms, soles
• Neuro: no facial asymmetry, no meningismus, normal sensation and strength
Case 1
Ophthalmology

• Slit lamp exam:
  – Panuveitis
  – Bilateral acute retinal necrosis

• “Extensive abnormalities and retinal findings are suspicious for infectious etiology”

• Anterior chamber paracentesis was performed and aqueous humor was obtained
### Laboratory results

<table>
<thead>
<tr>
<th>WBC</th>
<th>12.3</th>
<th>▲</th>
</tr>
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<tbody>
<tr>
<td>RBC</td>
<td>5.49</td>
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</tr>
<tr>
<td>Hemoglobin</td>
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<tr>
<td>Hematocrit</td>
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<td>MCV</td>
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<td>MCH</td>
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<tr>
<td>MCHC</td>
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<td>RDW</td>
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<tr>
<td>MPV</td>
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<tr>
<td>Platelet Count</td>
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<td><strong>DIFFERENTIAL</strong></td>
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<tr>
<td>Neutrophils Absolute</td>
<td>7.7</td>
<td>▲</td>
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<tr>
<td>Lymphocytes Absolute</td>
<td>3.4</td>
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<tr>
<td>Monocytes Absolute</td>
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<tr>
<td>Eosinophils Absolute</td>
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<tr>
<td>Basophils Absolute</td>
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<tr>
<td>Large Unstained Cells</td>
<td>3</td>
<td></td>
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<tr>
<td><strong>OTHER HEMATOLOGY</strong></td>
<td></td>
<td></td>
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<tr>
<td>Sed Rate</td>
<td>7</td>
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<tr>
<td><strong>CHEM</strong></td>
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<tr>
<td>Sodium</td>
<td>139</td>
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<td>Potassium</td>
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<tr>
<td>Chloride</td>
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<td>CO2</td>
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<td>BUN</td>
<td>11</td>
<td></td>
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<tr>
<td>Creatinine</td>
<td>0.96</td>
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<tr>
<td>BUN/Creatinine Ratio</td>
<td>11</td>
<td></td>
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<tr>
<td>Anion Gap</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Glucose</td>
<td>106</td>
<td></td>
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<tr>
<td>Calcium</td>
<td>9.8</td>
<td></td>
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<tr>
<td>EGFR African American</td>
<td>&gt;=60</td>
<td></td>
</tr>
<tr>
<td>EGFR Non-African American</td>
<td>&gt;=60</td>
<td></td>
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<tr>
<td><strong>CARDIAC PROFILE</strong></td>
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<td></td>
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<tr>
<td>CRP</td>
<td>0.9</td>
<td></td>
</tr>
</tbody>
</table>
Test results

- HIV negative
- RPR 1:512
- TP-PA positive
- CSF
  - VDRL 1:2
  - 75 WBCs 78% L, 3% N, 19% mono/macrophages
  - 35 RBCs
  - Protein 58
  - Glucose 57
- ACE – negative
- ANA 1:160 (speckled)
- ANCA negative
- HLA B27 – positive by flow cytometry
- Lyme serology negative
- GC/CT negative (throat, urine)
- Aqueous humor:
  - HSV PCR negative
  - CMV PCR negative
  - VZV PCR negative
  - Toxo PCR negative
Hospital course

- Admitted from ED
- Due to acute retinal necrosis initial concern for HSV/VZV/CMV infection was high. Started on IV acyclovir and intravitreal ganciclovir was considered but deferred
- Once RPR result returned, acyclovir was stopped. Treated with IV Aqueous PCN G 24MU daily and solumedrol x 3 days then steroid eye drops (pred forte) *(role of steroids is undefined)*
- Diagnosed with secondary syphilis:
  - Recalls having a painless chancre
  - High RPR titer
  - Mucous patches in mouth
  - Hyperkeratotic plaques with ‘collarette scales’ (Biett collarettes) on palms and soles
    - Pathognomonic for secondary syphilis
- No improvement in vision at discharge
- Prognosis for future improvement in vision in guarded.
Plaques with ‘collarette scales’ (Biett collarette) on palms and soles

Mucous patches
Case 2
Case 2: MSM with Rash & Blurry Vision

- 31 y/o MSM, methamphetamine use
- Symmetric macular rash on trunk and palms
- 1 month of blurry vision
- Feels generally unwell
- No meds, allergies or travel

Photos: Engelman, SFCC
Case 2: Diagnostic Work-up

- Ophthalmologist diagnosis: Retinitis
- Rapid HIV positive (CD4 50, VL 75,000)
- Normal CBC, electrolytes
- Neg PPD
- Neg RPR

Photos: Engelman, SFCC
What might explain this patient’s rash and ocular manifestations??

1) Acute HIV rash with CMV retinitis
2) Prozone phenomenon and ocular syphilis
3) Rash and retinitis have separate etiologies
4) None of the above
Prozone Phenomenon

False Negative RPR
High Ab titers prevent antibody/antigen lattice formation

Rare
Occurs ~0.3-2% (early syphilis/secondary)
May be more common in HIV+ and neurosyphilis

Case 2 Diagnosis: Secondary Syphilis w/ ocular involvement + Prozone

- Repeat RPR 1:1024
- Patient initial RPR- False Negative
- Retinitis is manifestation of Ocular Syphilis

Photos: Engelman, SFCC
Ocular Syphilis

Photo Courtesy: Dr. Kees Rietmeijer, STD Control, Denver PHD
Case 2: Secondary Syphilis with Ocular Manifestations

• Lumbar Puncture Findings
  – CSF VDRL 1:16
  – RBC 6, WBC 80 (93% L)
  – Glucose 39, Protein 100

• Evidence of Neurosyphilis
What stage(s) of syphilis involves the eye?

- All stages of syphilis can involve the eye.
- Eye involvement tends to occur most frequently in secondary syphilis and late syphilis.
What part of the eye is involved?

- **Every** part of the eye can be involved during any stage of the infection
- The vast majority of eye problems associated with syphilis are also associated with many other infectious and non-infectious diseases.
  - In other words, there are almost no eye findings that are absolutely specific for syphilis
Ocular Syphilis

Manifestations:
- Conjunctivitis, scleritis, and episcleritis
- **Uveitis**: anterior and/or posterior
- Elevated intraocular pressure
- **Chorioretinitis**, retinitis
- Vasculitis

Symptoms:
- Redness
- Eye pain
- Floaters
- Flashing lights
- Visual acuity loss
- Blindness

Diagnosis:
- Ophthalmologic exam
- Serologies: RPR, VDRL, treponemal tests
- Lumbar puncture

Slide courtesy of Sarah Lewis, MD

Ocular Syphilis: Acute and Chronic

- **Lids**
  - Chancre
  - Gumma
  - Tarsitis
  - Ulcerative blephartis

- **Conjunctive**
  - Chancre
  - Papular Syphilides
  - Gumma

- **Orbit**
  - Periostitis
  - Gumma

- **Cornea**
  - Interstitial keratitis
  - Ulcers
  - Deep, punctate keratitis
  - Keratitis Profunda
  - Keratitis Pustuliformis
  - Keratitis linearis migrans
  - Gumma

- **Sclera**
  - Episcleritis
  - Scleritis
  - Gumma

- **Anterior Chamber**

- **Hypopyon**

- **Iris and Ciliary Body**
  - Roseolae
  - Papules
  - Gumma

- **Pupils**
  - Light – near dissociation

- **Lens**
  - Capsular rupture and necrotixing cortical inflammation – congenital syphilis

- **Optic Nerve**
  - Neuritis
  - Perineuritis
  - Neuroretinitis
  - Gumma

- **Motility Dysfunction**
  - Oculomotor, abducens, trochlear paresis – associated with basilar meningitis
  - Periodic alternating nystagmus

- **Retina and Vitreous**
  - Chorioretinitis – pseudoretinitis pigmentosa, salt and pepper fundus
  - Perivasculitis
  - Central retinal artery/vein occlusion
  - Cystoid macular edema
  - Vitirtis
# Clinical Features and Incidence Rates of Ocular Complications in Patients With Ocular Syphilis

*Am J Ophthalm 2015: 159:334-343*

AHMADREZA MORADI, SHERVEEN SALEK, EBENEZER DANIEL, SAPNA GANGAPUTRA, TRUCIAN A. OSTHEIMER, BRYN M. BURKHOLDER, THERESA G. LEUNG, NICHOLAS J. BUTLER, JAMES P. DUNN, AND JENNIFER E. THORNE

**Review of 35 patients (61 eyes) from 1984-2014**

## TABLE 2. Clinical Characteristics of Eyes With Ocular Syphilis at Presentation (Continued)

<table>
<thead>
<tr>
<th>Clinical Characteristics</th>
<th>HIV Negative (N = 26)</th>
<th>HIV Positive (N = 35)</th>
<th>Total (N = 61)</th>
<th>P Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ocular complications</strong></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Cataract</td>
<td>69.2% (18/26)</td>
<td>33.3% (7/21)</td>
<td>53.2% (25/47)</td>
<td>.02</td>
</tr>
<tr>
<td>Pseudophakia</td>
<td>3.8% (1/26)</td>
<td>3% (1/21)</td>
<td>3.6% (2/47)</td>
<td></td>
</tr>
<tr>
<td>Posterior synechiae</td>
<td>32% (8/26)</td>
<td>45.5% (5/12)</td>
<td>34.2% (13/38)</td>
<td></td>
</tr>
<tr>
<td>Chorioretinitis</td>
<td>38.5% (10)</td>
<td>33.3% (11)</td>
<td>35.6% (21)</td>
<td></td>
</tr>
<tr>
<td>Cystoid macular edema</td>
<td>7.7% (2/26)</td>
<td>0 (0/21)</td>
<td>4.3% (2/47)</td>
<td></td>
</tr>
<tr>
<td>Retinal detachment</td>
<td>7.7% (2)</td>
<td>6% (2)</td>
<td>6.8% (4)</td>
<td></td>
</tr>
<tr>
<td>Optic nerve involvementb</td>
<td>3.8% (1)</td>
<td>21.2% (7)</td>
<td>13.56% (8)</td>
<td>.06</td>
</tr>
<tr>
<td>Ocular HTN (IOP &gt;21 mm Hg)</td>
<td>3.8% (1)</td>
<td>4.5% (1/22)</td>
<td>4.2% (2/48)</td>
<td></td>
</tr>
<tr>
<td>Hypotony (IOP &lt;5 mm Hg)</td>
<td>3.8% (1)</td>
<td>4.5% (1/22)</td>
<td>4.2% (2/48)</td>
<td></td>
</tr>
<tr>
<td>Glaucoma</td>
<td>4% (1)</td>
<td>0</td>
<td>1.8% (1)</td>
<td></td>
</tr>
<tr>
<td>Choroidal neovascularization</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Epiretinal membrane</td>
<td>0</td>
<td>4.8% (2/21)</td>
<td>4.4% (2/46)</td>
<td></td>
</tr>
</tbody>
</table>

AC = anterior cell; HIV = human immunodeficiency virus; HTN = hypertension; IOP = intraocular pressure.

*P values were calculated using Fisher exact or 1-sided Fisher exact test.

bIncludes optic neuritis, optic atrophy, and optic disc swelling.
Are ocular syphilis and neurosyphilis the same thing?

- No, they are separate entities but there is a lot of overlap
Two Important Points to Remember

1. All Stages of Syphilis Can Involve the Eye
2. Neurosyphilis can occur in ANY stage
Syphilis Natural History

Exposure → 30-50% → 1^0 → 2-6 weeks → 2^0 → Latent → 25% → After 3-8 weeks lesions disappear spontaneously → 30% → Tertiary → 2-20 years

Neurosyphilis can occur at any stage
Who do we diagnose with ocular syphilis?

• Ocular signs and symptoms in a person who has syphilis
  – Most diagnoses are presumptive
  – Most patients will have positive serological tests
    • In patients with late ocular syphilis, 30% may have a NEGATIVE serum RPR but all will have a positive serum treponemal test
    • VERY rarely, someone with early syphilis (primary stage) will have negative syphilis serologies (both treponemal and RPR) and eye symptoms
Do you need to do an LP in someone who only has eye symptoms and no neurological symptoms?

• YES, and here’s why:
  – If the CSF VDRL is positive in someone who has eye symptoms, you can make a DEFINITIVE diagnosis of ocular syphilis (that’s really the only way to make a DEFINITIVE diagnosis)
  – Up to 70% of patients with ocular syphilis will have evidence of neurosyphilis on LP
  – If they have evidence of neurosyphilis, the clinicians will need to follow them with LPs every 6 months to make sure they are responding to therapy
## Symptoms: Questions to Ask

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Have you recently had a change or blurring in your vision?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Do you see flashing lights?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Do you see spots that move or float by in your field of vision?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Have you recently had pain or redness in the eyes?</td>
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</tr>
</tbody>
</table>

Providers should consider evaluation and treatment for ocular syphilis in patients with new changes in vision, including loss of vision, blurring, seeing spots or flashing lights and pain and/or redness in one or both eyes.

### Symptoms: Questions to Ask

#### Symptoms of Neurosyphilis

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>5) Have you recently been having headaches?</td>
<td></td>
<td></td>
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<tr>
<td>6) Have you had new weakness in any part of your body (including your arms, legs, or face)?</td>
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<tr>
<td>7) Have you had problems walking?</td>
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<tr>
<td>8) Have you had problems with memory or confusion?</td>
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<td></td>
</tr>
<tr>
<td>9) Do you feel (or have you been told) that your personality has changed?</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

*Consider evaluation and treatment for neurosyphilis in patients with new-onset of headaches (or headaches that are different from their usual headaches); new and persistent change in personality, memory or judgment; new numbness or weakness in the face, arms or legs; and/or new gait incoordination.*

What should you do if you suspect someone has ocular involvement?

- In rare cases, syphilis of the eye can progress very rapidly and cause blindness.
- If one suspects that eye symptoms are due to syphilis, patients must be evaluated by an ophthalmologist quickly.
  - If you don’t have access to an ophthalmologist, then patients need to be referred to a local ER.
- If the ophthalmologist finds evidence of eye involvement, the patient will likely need a LP.
How do we treat ocular syphilis

• Use the same regimen as neurosyphilis EVEN IF THE LUMBAR PUNCTURE IS NORMAL (remember, 30% of patients with ocular syphilis will have a normal lumbar puncture)

• One should be careful NOT to delay antibiotics while waiting for a lumbar puncture to be done
Ocular Syphilis / Neurosyphilis Treatment

- **Recommended regimen:**
  - Aqueous Crystalline Penicillin G 18-24 mu IV daily administered as 3-4 million units IV q 4 hr for 10 -14 days

- **Alternative regimen:**
  - Procaine Penicillin G 2.4 mu IM daily plus Probenecid 500 mg PO q d, both for 10-14 days

**Consider:** BIC 2.4 million units IM once per week up to 3 weeks after completion of 10-14 day course for late syphilis

CDC 2015 STD Treatment Guidelines
Will patients with ocular syphilis get better with antibiotic treatment?

• Yes, the majority of patients will get better with antibiotic treatment if antibiotics are not significantly delayed

• Some patients, particularly those with late ocular syphilis, may not improve. The goal of therapy in these patients is to stop further progression of disease
CDC April 2015 Clinical Advisory: Ocular Syphilis Alert- CA, WA, other states

- 24 cases majority HIV-infected MSM
  - Few HIV-uninfected men and women
  - Significant sequelae including blindness
- Be aware of ocular syphilis:
  - **Symptoms may include:** loss of vision, floaters, a blue tinge in vision, flashing lights and blurring of vision
- Careful neurologic exam in syphilis patients
- Patients with syphilis and ocular complaints need **immediate** ophthalmologic evaluation!!!
- LP should be performed in patients with syphilis and ocular complaints
- Prior research has documented neuropathogenic strains
  - ? unknown if oculo-tropic strain role in these cases

Ocular Syphilis in Maryland 2015: Preliminary Findings
Patient’s Sex

Ocular Syphilis Cases - Maryland 2015

Female
21%
3

Male
79%
11

* Two cases counted in the total but could not be located for follow-up

Source: Center for STI Prevention, Maryland Department of Health and Mental Hygiene
Geographic Distribution of Ocular Syphilis Cases in Maryland, 2015

N=14; Preliminary Data

Source: Center for STI Prevention, Maryland Department of Health and Mental Hygiene
Age at Diagnosis

- Ages ranged from 22 to 64 (median age 50)
- 8 out of 14 were over the age of 50

Race/Ethnicity

- White: 8 (57%)
- Black: 5 (36%)
- Unknown: 1 (7%)

Source: Center for STI Prevention, Maryland Department of Health and Mental Hygiene
HIV Status

- Previous HIV Dx, 3
- Dx with HIV simultaneously, 3
- Unknown, 1
- HIV negative, 7

Source: Center for STI Prevention, Maryland Department of Health and Mental Hygiene
Syphilis Stages

- 11 people had no documented history of syphilis before diagnosis
- 3 people did not provide information about history of syphilis

Source: Center for STI Prevention, Maryland Department of Health and Mental Hygiene
Reported Symptoms and Diagnosed Conditions

Reported Symptoms

• Blurry vision (6)
• Painful or red eyes (5)
• Vision loss (4)
• Eye pressure (1)
• Photosensitivity (1)
• “Eye infection” (1)

Diagnosed Conditions

► Uveitis (3)
► Scleritis (1)
► Swelling of the optic nerve (1)
► Leaking optic nerve (1)
► Retinitis (1)

• 9 people were reported as visiting an ophthalmologist
• 3 people reported extra-ocular neurologic symptoms of hearing loss and headache

Source: Center for STI Prevention, Maryland Department of Health and Mental Hygiene
Treatment was reported for 12 people

Following treatment, did patient's ocular symptoms improve?

- Did not improve: 1
- Symptoms completely improved: 4
- Status not reported: 7

Source: Center for STI Prevention, Maryland Department of Health and Mental Hygiene
Is this increase in ocular syphilis indicative of a more virulent form of neurosyphilis?

Or is this because we are seeing an increase of cases and more protean manifestations of an old disease?
**T. Pallidum** strains associated with neurosyphilis?

- *T. Pallidum* DNA from 83 patients evaluated for neurosyphilis (Seattle)
  - 21(50%) of 42 patients with one strain type (14d/f) had neurosyphilis (P = .02)
  - 10 (24%) of 41 patients with the other 7 strains had neurosyphilis

- **Rabbit studies**
  - Animals infected with 14a/a strain and 14d/f strain had greatest degree of neuroinvasion.

- **Further study needed**

*Marra et al. JID 2010*
*Tantalo et al. JID 2005.*
Ocular Syphilis Specimen Protocol:  
*T. Pallidum* Molecular Strain Typing Study

- CDC study of strain types associated with ocular syphilis
- U. of Washington lab to do strain typing
- Specimens: Need to be pre-antibiotic (untreated syphilis-ocular manifestations)
  - Whole blood 3 ml purple top (EDTA) tube
  - Primary lesions and moist Secondary Lesions (squeeze/swab lesion with sterile dacron swab - place swab in freezer tube)
  - CSF 2-3 ml
  - Ocular fluid ( aqueous or vitreous)
- Freeze specimens immediately at -80°C  
  (-20C to -70C, OK if -80C not available)  
  Specimens need to be shipped on dry ice
- CDC Contact for detailed instructions  
  - Dr. Sara Oliver  
  - (404) 639-1204 or yxo4@cdc.gov
Ocular Syphilis: Ongoing Questions and Challenges

• Lack of clarity whether this represents:
  – outbreak of a more neuro/ocular-tropic syphilis strain
    versus
  – increased awareness of a known complication of syphilis
    in the setting of rising number of syphilis cases

• Limitations of current surveillance system to detect/record ocular syphilis cases
In summary

• Clinicians should be aware of ocular syphilis and screen for visual complaints in any patient at risk for syphilis.
  – Risk factors for syphilis include having sex with anonymous or multiple partners, sex in conjunction with illicit drug use, or having a partner who engages in any of these behaviors.

• Assure that all patients diagnosed with syphilis, or suspected of having syphilis, are evaluated for ocular and neurological symptoms.

• Refer patients with positive syphilis serology and either ocular or neurological signs or symptoms immediately for: ophthalmologic evaluation; evaluation for lumbar puncture with CSF examination; and possible hospital admission and IV therapy.
  – When referring a patient for evaluation, communicate the need to evaluate specifically for ocular or neurosyphilis using the Maryland Ocular Syphilis & Neurosyphilis Screening Guide.
In summary

• Obtaining a lumbar puncture is ideal, but treatment should NOT be delayed while waiting for a lumbar puncture.

• Manage ocular syphilis according to current CDC treatment guidelines for neurosyphilis (Aqueous crystalline penicillin G IV or Procaine penicillin IM with Probenecid for 10-14 days; see http://www.cdc.gov/std/tg2015/syphilis.htm).

• Test all patients with syphilis for HIV if status is unknown or previously HIV-negative.

• Report all cases of ocular syphilis to your local health department within 24 hours of diagnosis.
  – The case definition for an ocular syphilis case is as follows: a person with clinical symptoms or signs consistent with ocular disease (i.e. uveitis, panuveitis, diminished visual acuity, blindness, optic neuropathy, interstitial keratitis, anterior uveitis, and retinal vasculitis) with syphilis of any stage.
Confidential morbidity reporting instructions and the Maryland Confidential Morbidity Report Form can be found at: http://tiny.cc/frsb8x.
Syphilis: Washington reports 6 ocular syphilis cases in past month, blindness reported in two

Posted by Robert Herriman on January 24, 2015 // 7 Comments

Since mid-December 2014, the Washington Department of Health has reported six cases of ocular syphilis, or syphilis of the eyes, causing blindness in at least two patients.

Outbreak News Today

This funduscopic image reveals the effects of late neuro-ocular syphilis on the optic disk and retina/CDC

Cases of ocular syphilis on the rise
To receive technical assistance with treatment guidelines, ocular syphilis, neurosyphilis, or specific case consultations, please contact the Maryland DHMH’s Center for STI Prevention (CSTIP) at STIClinicalConsult@maryland.gov or (410) 767-6690

For additional STI information:
Maryland DHMH Center for STI Prevention
http://tiny.cc/4zsb8x

Centers for Disease Control and Prevention
http://www.cdc.gov/std/syphilis/default.htm
Presented by:

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Questions/Discussion

e-mail questions for the presenter to: maphtc@jhu.edu

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