

# A Bus to Berlin



Julia Elpers, MD

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# Patient Presentation

## CC

Blurry Vision and eye pain

## HPI

34 yo AAF complaining of blurry vision for 2-3 weeks that has been worsening. She also endorses sharp pain in both eyes which is worse in bright light.



# History

Past Ocular Hx

None

Past Medical Hx

Pneumonia 5 months prior

Past Surg Hx

C-Section

Fam Hx

Cataract

Meds

amoxicillin for recent UTI

Allergies

percocet

Social

- + Tobacco <1PDD
- + Alcohol: Occasional/Social.
- Substance Abuse: None
- Married, Lives with family.

RoS

- +Back pain - due to kidney infection
- +Headaches, since eye pain started



# Physical Exam

	OD	OS
BCVA	20/80	20/80
Pupils	3mm, irregular, sluggish, no RAPD	3mm, irregular, sluggish, no RAPD
IOP	23 mmHg	21 mmHg
EOM	full	full
CVF	full	full

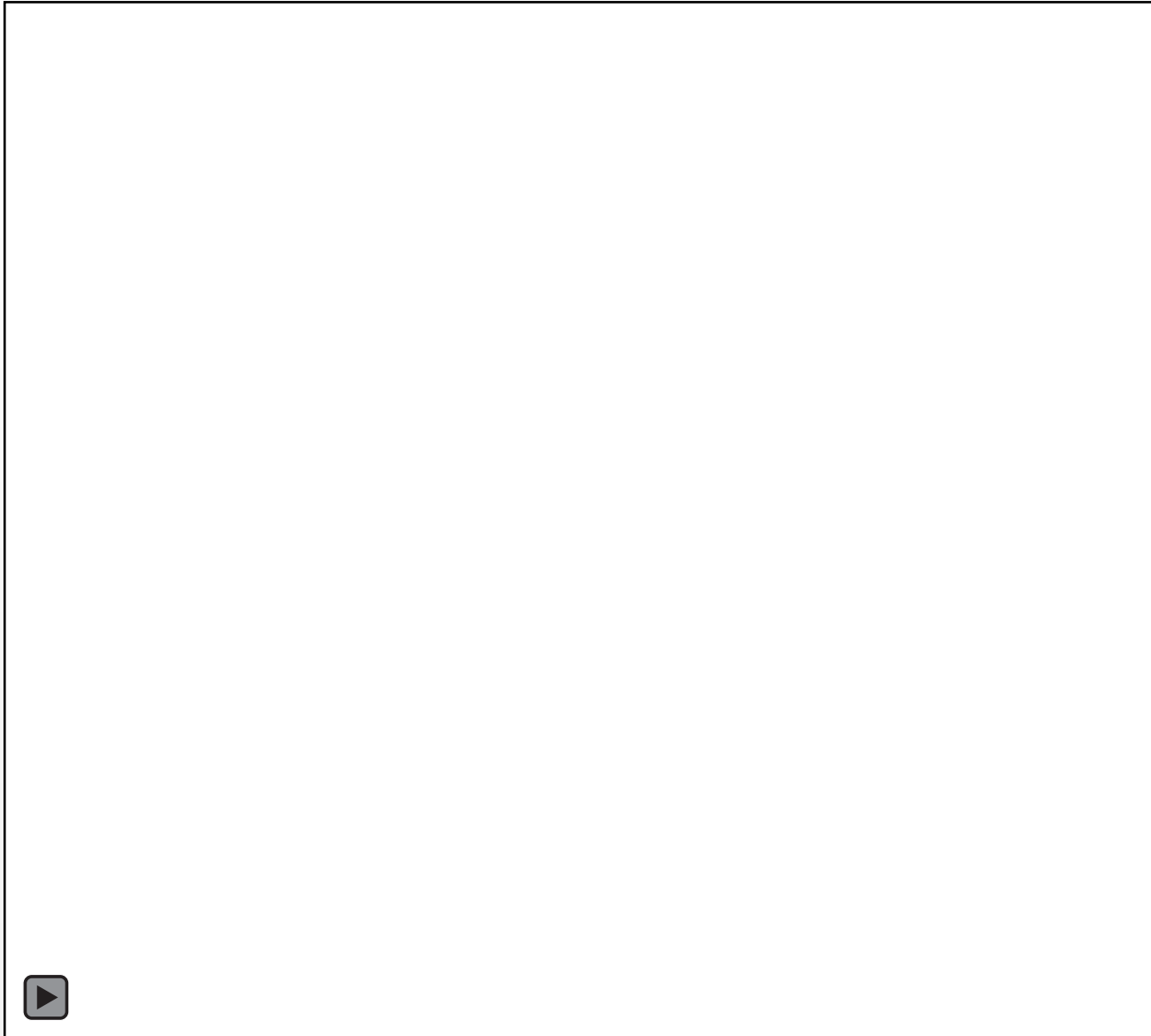


# Physical Exam

SLE	OD	OS
C/S	<ul style="list-style-type: none"> <li>• Tr injxn,</li> <li>• Yellow nodules on palpebral conj</li> </ul>	<ul style="list-style-type: none"> <li>• Tr injxn,</li> <li>• Yellow nodules on palpebral conj</li> </ul>
K	Mutton fat KPs on endothelium	Mutton fat KPs on endothelium
AC	Deep, 3+ cell, 1+ flare	Deep, 3+ cell, 1+ flare
Iris	<ul style="list-style-type: none"> <li>• Koeppe nodules</li> <li>• Bussaca nodules</li> <li>• Posterior synechiae</li> </ul>	<ul style="list-style-type: none"> <li>• Koeppe nodules</li> <li>• Bussaca nodules</li> <li>• Posterior synechiae</li> </ul>
Lens	Pigment on ant capsule	Pigment on ant capsule
Vit	3+ anterior cells	3+ anterior cells



# Physical Exam



# Physical Exam



# Physical Exam

Fundus	OD	OS
	Limited view due to cornea/AC	
Vitreous	<ul style="list-style-type: none"> <li>• 2+ Vit Haze</li> <li>• +Snowballs</li> <li>• +Vitreous veils</li> </ul>	<ul style="list-style-type: none"> <li>• 2+ Vit Haze</li> <li>• +Snowballs</li> <li>• +Vitreous veils</li> </ul>
Optic Nerve	Disc Hyperemia.	Disc Hyperemia.
Macula	flat	flat
Vessels	Normal, no vasculitis	Normal, no vasculitis
Periphery	attached 360° - few chorioretinal pale lesions ~200-400 microns in size.	attached 360° - few chorioretinal pale lesions ~200-400 microns in size.





# Assessment

- 34 yo AAF with panuveitis OU suspicious for granulomatous process.
- Differential Diagnosis for mutton-fat KP + iris nodules:
  - Sarcoidosis
  - Tuberculous
  - Syphilis
  - Vogt-Koyanagi-Harada
  - SO
  - Lens-induced



# Work-up

Quantiferon Gold

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HIV

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ANA

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ACE

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CXR

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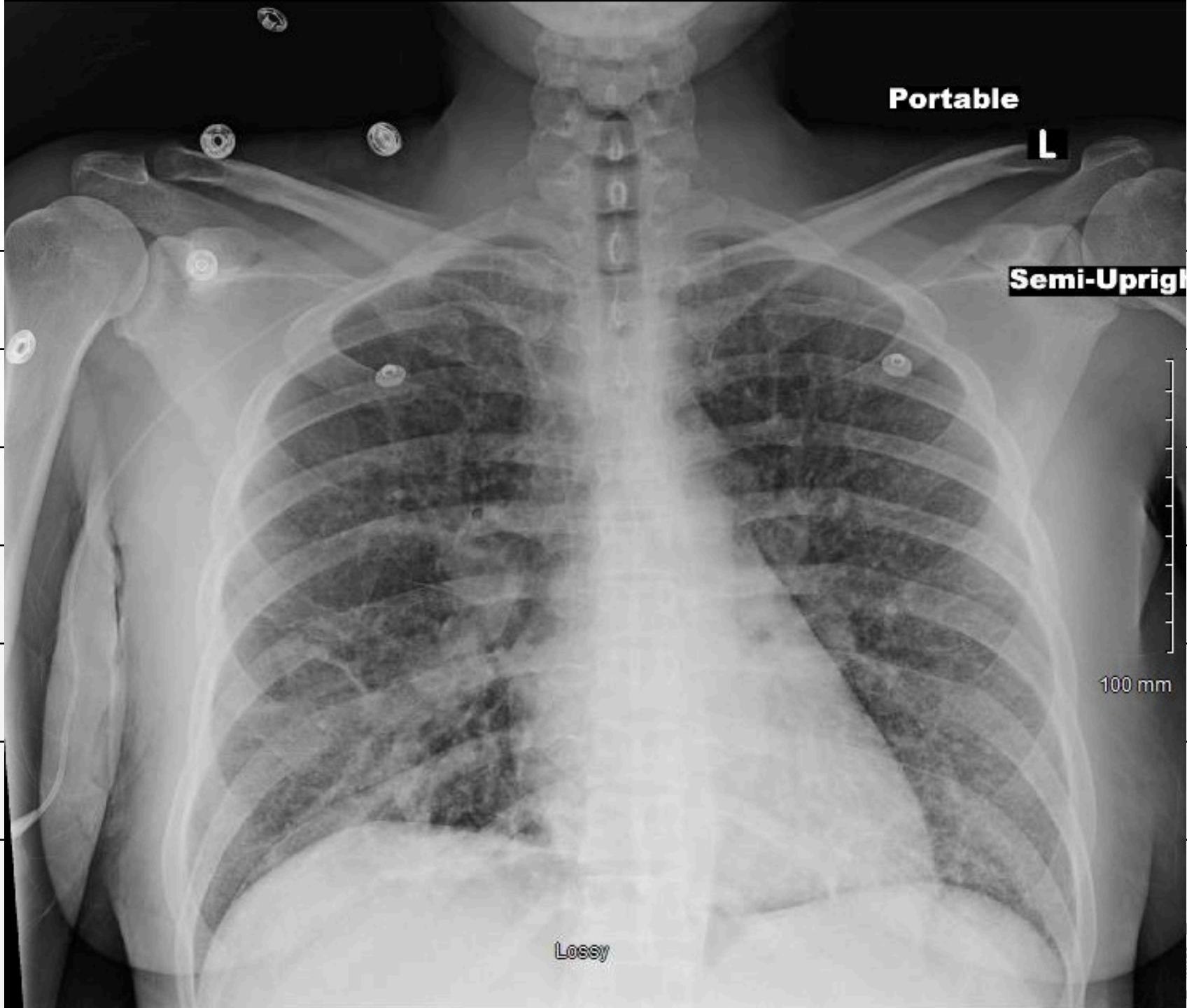
Treponemal antibody

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RPR

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Portable

L

Semi-Upright

100 mm

Lacey



# Work-up

Quantiferon Gold      negative

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HIV      negative

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ANA      negative

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ACE      537 (normal 14-82 U/L)

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CXR      Bilateral hilar adenopathy

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Treponemal antibody      Positive

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RPR      RPR 1:16

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Bronchoscopy:      lymph node FNA + for non-necrotizing granulomatous inflammation



# Assessment

- 34 yo AAF with panuveitis OU found to have both **positive titers for syphilis** and likely sarcoidosis.
- Findings support diagnosis of sarcoidosis:
  - Hilar adenopathy
  - Elevated ACE
  - Granulomatous inflammation on biopsy
- **BUT**
  - Syphilis can do anything .
  - Cannot give systemic steroids until syphilis is treated



# Follow Up

- Completed 2 weeks of IV penicillin G
- Inflammation had minimal improvement at one week
- Plan: add systemic steroids if still persistent severe inflammation after finishing penicillin
- Has not followed up.



# Primary Syphilis

- Incubation period of 21 days
- Painless papule that ulcerates into chancre
- Chancres heal spontaneously within 3-6 weeks without treatment



# Secondary Syphilis

- Within weeks to months following untreated chancre
- Symptoms:
  - Constitutional symptoms
  - Adenopathy
  - Maculopapular rash on trunk, palms and soles
  - Alopecia
  - Hepatitis
  - MSK
  - Headache
  - Meningitis

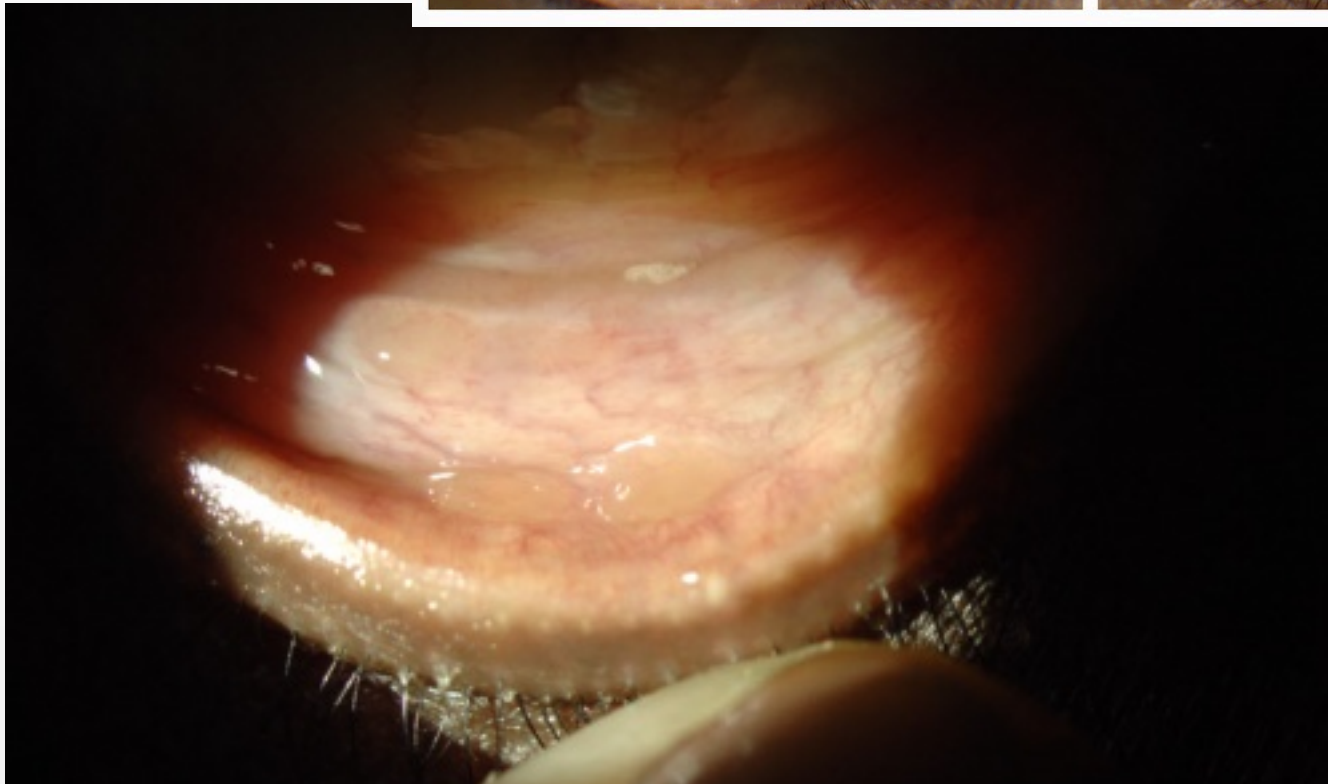
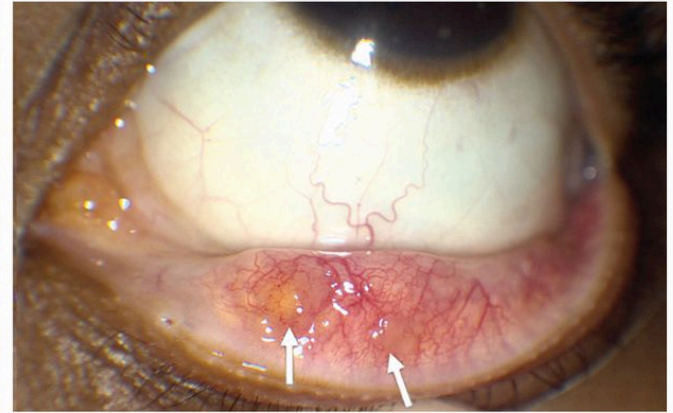
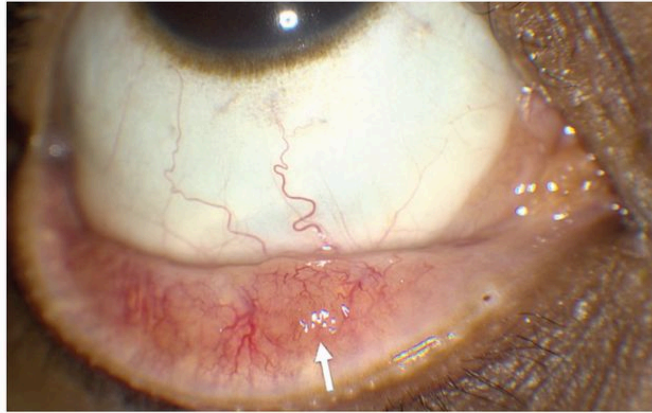


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- Granulomatous signs
- (usually sarcoid)



# Koeppe took a Bus to Berlin

- Koeppe nodules are inflammatory cell precipitates which lie at the pupillary margin
  - Can be found in nongranulomatous and granulomatous uveitis
- Bussaca nodules are pathognomonic for granulomatous uveitis
- Berlin nodules in the angle



# Treatment

- Early syphilis (primary + secondary + early latent syphilis)
  - IM Penicillin 2.4 million units x1
  - Doxy 100 bid x14 days
  - Tetracycline 500 qid x14 days
  - Amoxicillin 3 g + probenecid 500 mg bid x14 days
- Late Syphilis (cardiovascular + gummatous disease + late latent syphilis)
  - IM Penicillin 2.4 million units qWeekly x3
  - Doxy 100 bid x4weeks
  - IM/IV Ceftriaxone 2 g qd x10-14 days



# Treatment

- Neurosyphilis (Early and Late)
  - IV penicillin 3-4 million units q4h for 10-14 days
  - IM penicillin 2.4 million units qd + probenecid 500 mg qid for 10-14 days
  - IV Ceftriaxone 2 g qd for 10-14 days



# Resurgence of Syphilis

[Int J Ophthalmol](#). 2018; 11(9): 1573–1576.

PMCID: PMC6133901

Published online 2018 Sep 18. doi: [10.18240/ijo.2018.09.25](https://doi.org/10.18240/ijo.2018.09.25)

PMID: [30225238](https://pubmed.ncbi.nlm.nih.gov/30225238/)

## Ocular syphilis: resurgence of an old disease in modern Malaysian society

[Mushawiahti Mustapha](#), [Zakaria Abdollah](#), [Amin Ahem](#), [Hazlita Mohd Isa](#), [Mae-Lynn Catherine Bastion](#), and [Norshamsiah Md Din](#)

[Emerg Infect Dis](#). 2018 Feb; 24(2): 193–200.

PMCID: PMC5782877

doi: [10.3201/eid2402.171167](https://doi.org/10.3201/eid2402.171167)

PMID: [29350138](https://pubmed.ncbi.nlm.nih.gov/29350138/)

## Increase in Ocular Syphilis Cases at Ophthalmologic Reference Center, France, 2012–2015

[Ana Catarina Pratas](#), [Pablo Goldschmidt](#), [David Lebeaux](#), [Claire Aguilar](#), [Natalia Ermak](#), [Jonathan Benesty](#), [Caroline Charlier](#), [Edgar Benveniste](#), [Lilia Merabet](#), [Neila Sedira](#), [Emilie Hope-Rapp](#), [Christine Chaumeil](#), [Bahram Bodaghi](#), [Emmanuel Héron](#), [José-Alain Sahel](#), [Olivier Lortholary](#), and [Marie-Hélène Errera](#)<sup>✉</sup>

[RACGP Home](#) / [AFP](#) / [2017](#) / [June](#) /

## Keeping an eye on syphilis

[Volume 46, No.6, June 2017](#) Pages 401-404

[Eye \(Lond\)](#). 2018 Jan; 32(1): 99–103.

PMCID: PMC5770706

Published online 2017 Aug 4. doi: [10.1038/eye.2017.155](https://doi.org/10.1038/eye.2017.155)

PMID: [28776596](https://pubmed.ncbi.nlm.nih.gov/28776596/)

## Ocular syphilis: the re-establishment of an old disease

[J Wells](#),<sup>1</sup> [C Wood](#),<sup>2</sup> [A Sukthankar](#),<sup>2</sup> and [N P Jones](#)<sup>1,3,\*</sup>



## Clinical manifestations and treatment outcomes of syphilitic uveitis in HIV-negative patients in China

A retrospective case study

[Jiang Zhu](#), BS,<sup>a</sup> [Yuan Jiang](#), MS,<sup>a</sup> [Yewen Shi](#), MS,<sup>a,b,\*</sup> [Bo Zheng](#), BS,<sup>a</sup> [Zhiguo Xu](#), BS,<sup>a</sup> and [Wei Jia](#), BS<sup>a</sup>

- Retrospective case series of patients with syphilis chorioretinitis
- 41 eyes of 28 HIV negative patients
- Complaints were blurry vision, floaters and visual field defects
- 27 with panuveitis with all having posterior involvement including uveitis, vasculitis, chorioretinitis, optic neuritis
- Disc hyperfluorescence and persistent dark spots were seen on FFA and ICGA
- All patients received standard treatment and exam and evaluation was repeated every 3 months
- Treatment success if no inflammation in both eyes and RPR negative after therapy
- 34 eyes had improved best corrected visual acuity
- 11 patients were misdiagnosed before serology
- Delays in treatment caused cystoid macular edema and optic neuropathy



# Conclusions

- Syphilis can do anything
- Occam's Razor doesn't always apply
- Even if it looks like something else, no steroids until syphilis is treated



# References

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- Koeppe's Nodules. Columbia University Department of Ophthalmology. <https://www.columbiaeye.org/education/digital-reference-of-ophthalmology/cornea-external-diseases/non-infectious/koeppe-nodules>





