

CLINICAL PRACTICE

Clinical Images

Ocular Tuberculosis



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KEY WORDS: infectious disease; immigrant health; ophthalmology; radiology.

J Gen Intern Med 34(10):2288–9

DOI: 10.1007/s11606-019-05129-w

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A 35-year-old man from China presented with a 1-month history of night sweats, weight loss, fever, abdominal bloating, and progressive left eye vision loss. He had started infliximab 3 months prior for Crohn's disease. Physical examination revealed mild hepatomegaly and a left eye visual field defect over the superior nasal quadrant. Fundoscopy demonstrated a choroidal tuberculoma with retinal detachment (Fig. 1). Abdominal computed tomography revealed multiple hepatic and splenic hypodensities (Fig. 2). Biopsy of the choroidal mass demonstrated caseating granulomas with acid-fast bacilli, and cultures growing *Mycobacterium tuberculosis*. HIV testing was negative. Infliximab was stopped, and he was started on quadruple antituberculous therapy.

The most common cause of ocular tuberculosis is hematogenous spread from a distant site, although primary isolated disease can also rarely occur.^{1, 2} Many parts of the eye can be affected including the iris and choroid. Choroidal tuberculomas are typically white, cream, or yellow colored, and may be associated with retinal detachment.^{2, 3} Ocular tuberculosis should be suspected in patients with ocular complaints and risk factors for tuberculosis or evidence of systemic infection. Confirmation with microbiologic or histopathologic testing is often challenging and most diagnoses are presumptive.²⁻⁴ Quadruple antituberculous therapy can achieve cure rates above

90%. Although often used to suppress ocular inflammation, treatment with systemic corticosteroids remains controversial.⁵



Figure 1 Fundoscopy demonstrating tuberculoma with associated retinal detachment (red arrow).



Figure 2 Abdominal computed tomography demonstrating multiple hepatic and splenic hypodensities (red arrows) suggestive of extrapulmonary tuberculosis.

Prior Presentations None.

Received June 1, 2018

Revised August 31, 2018

Accepted May 23, 2019

Published online July 24, 2019

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Compliance with Ethical Standards:

Conflict of Interest: The authors declare that they do not have a conflict of interest.

REFERENCES

1. **Sharma SK, Mohan A, Sharma A.** Challenges in the diagnosis & treatment of miliary tuberculosis. *Indian J Med Res.* 2012;135(5):703–30.
2. **Shakarchi FI.** Ocular tuberculosis: current perspectives. *Clin Ophthalmol.* 2015;9:2223–7.
3. **Yeh S, Sen HN, Colyer M, Zapor M, Wroblewski K.** Update on ocular tuberculosis. *Curr Opin Ophthalmol.* 2012;23(6):551–6.
4. **Thompson MJ, Albert DM.** Ocular tuberculosis. *Arch Ophthalmol-Chic.* 2005;123(6):844–9.
5. **Kee AR, Gonzalez-Lopez JJ, Al-Hity A, Gupta B, Lee CS, Gunasekeran DV,** et al. Anti-tubercular therapy for intraocular tuberculosis: A systematic review and meta-analysis. *Surv Ophthalmol.* 2016;61(5):628–53. <https://doi.org/10.1016/j.survophthal.2016.03.001>

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