

## IMAGES IN EMERGENCY MEDICINE

## Ophthalmology

# Woman with black floaters in eye

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## 1 | CASE PRESENTATION

A 29-year-old female presented to the emergency department with decreased visual acuity and black floaters in the left eye after an insidious progression of a febrile illness with associated myalgias, headaches, and lymphadenopathy over a 4-week period. History revealed she had eaten undercooked venison several weeks before symptom onset. She was afebrile and neurologically intact, without evidence of vitreal or retinal abnormalities on bedside ultrasound. During ophthalmologic follow-up care 2 days later, she developed left nasal visual field deficit. Ophthalmology noted optic disk edema and steroid therapy was initiated for presumed optic neuritis. Subsequent magnetic resonance imaging was negative, and she was referred to a retinal specialist who identified focal active chorioretinitis and confirmed the diagnosis with serum antibody titers (Figure 1).

## 2 | DIAGNOSIS: Toxoplasmosis chorioretinitis

Toxoplasmosis chorioretinitis is one of the most frequent causes of infectious uveitis affecting the posterior segment of the eye, which can cause severe vision loss. The most common cause is ingestion of undercooked meat or water with oocysts.<sup>1–3</sup> Infections may be asymptomatic. However, ocular symptoms can occur as a result of initial infection or reactivation of previous infection.<sup>4</sup> The classic retinal finding is the “headlight in fog sign” noted by a focal retinitis viewed through vitreous haze.<sup>5</sup> Diagnosis is made clinically. Serum antibody titers confirm the diagnosis. A 4- to 6-week course



**FIGURE 1** Ultra-widefield fundus photograph showing retinal whitening (asterisk) and focal traction (arrows) consistent with active chorioretinitis. The lack of an adjacent chorioretinal scar showcases this as a primary occurrence.

of trimethoprim-sulfamethoxazole is the first-line therapy for sight-threatening lesions. Other scenarios or refractory cases may require regimens of azithromycin, pyrimethamine, atovaquone, leucovorin, glucocorticoids, and/or intravitreal clindamycin injections. Lifelong suppressive antitoxoplasmosis treatment is often necessary to prevent recurrence.<sup>6</sup>

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