

THE CLINICAL PICTURE

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Iris roseola: A diagnostic clue in neurosyphilis

A 32-YEAR-OLD MAN with human immunodeficiency virus (HIV) infection presented with a 3-week history of decreased vision in the left eye. He had discontinued antiretroviral therapy 2 years earlier. On examination, his CD4 count was 205 cells/mm³ (reference range 500–1,500), and HIV viral load was 13,552 copies/mL (< 20).

Best-corrected visual acuity was 20/20 in the right eye and 20/100 in the left. Slit-lamp examination of the left eye revealed a congested vascular loop encircling the pupillary margin, consistent with iris roseola, a rare but classic manifestation of ocular syphilis¹ (Figure 1A and 1B). Fundoscopic examination of the left eye showed dense vitritis and necrotizing retinitis involving the superior retina (Figure 1C).

The differential diagnosis included infectious causes of uveitis in patients with HIV infection, such as syphilitic posterior uveitis, cytomegalovirus uveitis, herpes simplex virus and varicella-zoster virus anterior uveitis, and toxoplasmosis- and tuberculosis-associated uveitis. However, the presence of characteristic iris vascular changes (iris roseola) and posterior segment findings (necrotizing retinitis) was highly suggestive of syphilis, particularly in the setting of advanced HIV infection.^{2,3}

Serologic testing confirmed the diagnoses of syphilis and syphilitic necrotizing retinitis, with a positive *Treponema pallidum* hemagglutination assay and venereal disease research laboratory test, along with a rapid plasma reagin titer of 1:128.

Lumbar puncture was performed, and cerebrospinal fluid analysis revealed inflammatory fluid with a white blood cell count of 62 × 10⁶/L (0–5) with 100% mononuclear cells, protein 56 mg/dL (14–45), and glucose 54 mg/dL (50–80). Cerebrospinal fluid treponemal testing was strongly reactive (*T pallidum* hemaggluti-

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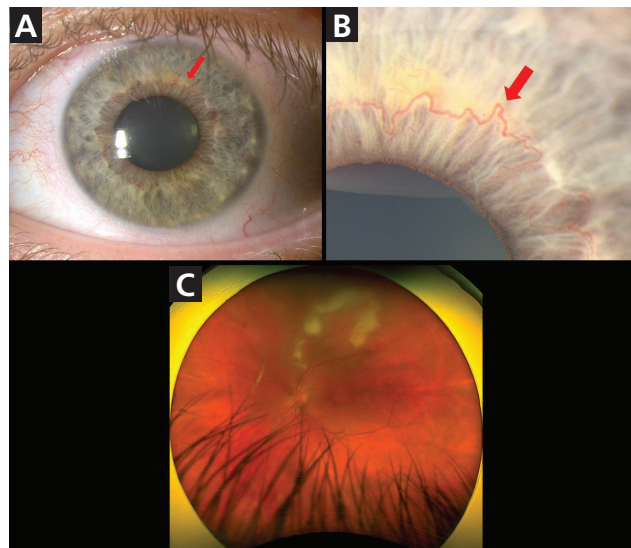


Figure 1. (A) Slit-lamp photograph of the left eye showing iris roseola, characterized by prominent engorged vessels encircling the pupillary margin. (B) High-magnification photograph showing dilated and tortuous iris vessels, a characteristic finding in syphilitic uveitis. (C) Wide-field fundus photograph of the left eye revealing dense vitritis and necrotizing retinitis, consistent with syphilitic posterior uveitis.

nation titer of 1:640), and a venereal disease research laboratory test was positive at a titer of 1:4, confirming the diagnosis of neurosyphilis.

Treatment with intravenous penicillin G 24 million units daily for 14 days was started. The anterior and posterior inflammation markedly improved over the following weeks. At the 2-month follow-up, iris roseola had resolved and visual acuity in the affected eye had improved to 20/20 (Figure 2).

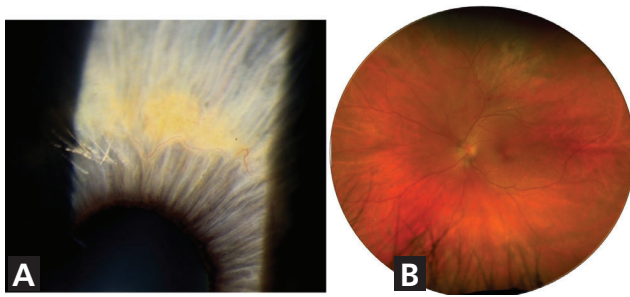


Figure 2. (A) Slit-lamp photograph of the left eye demonstrating complete resolution of the iris roseola. (B) Wide-field fundus photograph showing residual peripheral pigmentary changes consistent with resolved necrotizing retinitis.

■ A SIGN OF OCULAR SYPHILIS

Iris roseola is a rare but highly specific sign of ocular syphilis that is often overlooked unless the eye is carefully examined for characteristic vascular changes in the iris.¹ In immunocompromised patients, particularly those with HIV infection, syphilis may present with atypical or severe posterior involvement.^{2,3} Recognizing

a focal, engorged iris vascular loop in this context should prompt urgent ophthalmologic referral and timely lumbar puncture and treatment, potentially preventing irreversible visual and neurologic damage. ■

■ DISCLOSURES

The authors report no relevant financial relationships which, in the context of their contributions, could be perceived as a potential conflict of interest.

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