Photo Essay

Syphilitic uveitis as the presenting feature of HIV

Ekta Rishi, Madanagopalan V Govindarajan, Jyotirmay Biswas[1], Mamta Agarwal[1], S Sudharshan[1], Pukhraj Rishi

Key words: Acquired immune deficiency syndrome, eye, human immunodeficiency virus, syphilis, uveitis

A 25-year-old male presented with visual loss in the right eye for 20 days and best-corrected visual acuity of counting fingers in the right eye and 20/20 in the left eye. The anterior chamber (AC) had old keratic precipitates, no AC reaction, dense vitritis, active multifocal retinochoroiditis, and retinal vascular sheathing in all quadrants. The left eye showed sheathed blood vessels with chorioretinal atrophy [Fig. 1].

The regular bacteriologic and viral investigations on the aqueous and vitreous samples were negative. ELISA for HIV 1 and 2 was positive. Rapid plasma regain (RPR) was reactive at a dilution of >1:32, and *Treponema pallidum* hemagglutination assay (TPHA) was positive at more than 1:1280 dilution [Table 1].

The patient was started on tapering dose of oral steroids (1 mg/kg/day), antiretroviral therapy (tenofovir 300 mg, lamivudine 300 mg, and efavirenz 600 mg once daily). Intramuscular penicillin was administered for 3 weeks (2.4 million units every week).

After 2 months, visual acuity improved to 20/30, and vitreous inflammation cleared leaving behind retinal pigment epithelium mottling [Fig. 2].

Discussion

Syphilis is caused by the spirochete, *Treponema pallidum*. The disease has also been referred to as the great imitator.[1,2]

The prevalence of syphilis had decreased in the preceding two decades. At present, up to 70% patients with ocular syphilis are HIV positive. Syphilis is the underlying cause of uveitis in 16.4% of all cases.[3] Generalized creamy white infiltrates and diffuse retinitis is a peculiar feature of advanced syphilitic uveitis.[4]

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Bhagwan Mahavir Vitreoretinal Services, [1]Department of Uveitis and Inflammatory Disorders, Sankara Nethralaya, Chennai, Tamil Nadu, India

Correspondence to: Dr. Ekta Rishi, Shri Bhagwan Mahavir Vitreoretinal Services, Sankara Nethralaya, 18 College Road, Chennai - 600 006, Tamil Nadu, India. E-mail: ek_and@yahoo.com

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Syphilis elicits both a humoral and a cell-mediated immune response and can be detected by RPR and TPHA tests.[5]

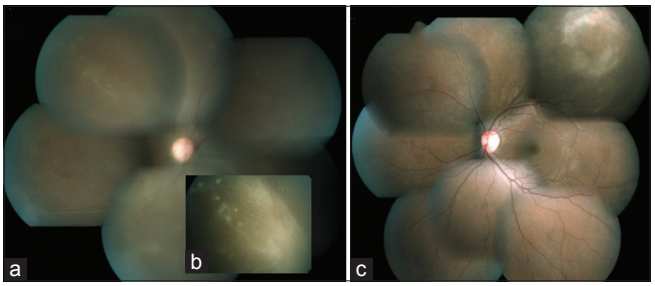

Figure 1: (a) Color fundus montage of the right eye shows vitritis, vascular sheathing, and retinochoroidal infiltrates. (b) Enlarged view of multifocal retinochoroidal infiltrates with vitreous exudates in the right eye. (c) Color fundus montage of left eye showing vascular sclerosis and healed retinochoroiditis in the superotemporal quadrant

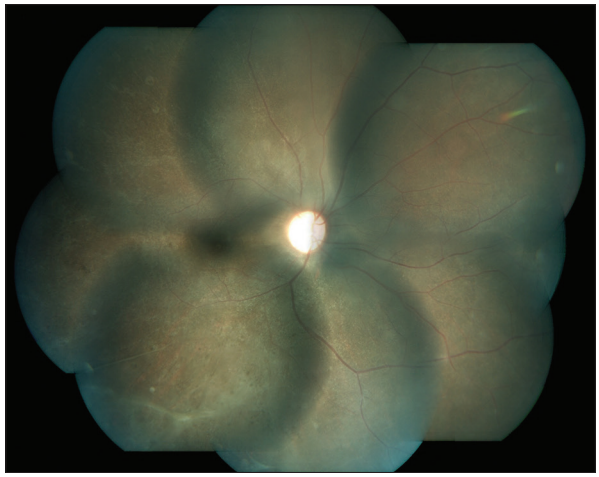

Figure 2: Color fundus montage picture of the right eye showing resolution of vitritis and retinochoroiditis with retinal pigment epithelium mottling 2 months following initiation of treatment

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Table 1: Investigations carried out and their results

Specimen	Investigation	Result
Aqueous humor	Gram staining and bacterial culture	No organisms seen
Aqueous humor	KOH mount microscopy and culture inSabouraud's dextrose agar	No organisms seen
Aqueous humor	Polymerase chain reaction for HSV, VZV, CMV, and *Toxoplasma*	Negative
Vitreous humor	Gram staining and bacterial culture	No organisms seen
Vitreous humor	KOH mount microscopy and culture in Sabouraud's dextrose agar	No organisms seen
Vitreous humor	Polymerase chain reaction for HSV, VZV, CMV, and *Toxoplasma*	Negative
Blood	Culture by BACTEC	No growth
Urine	Culture	No growth
Serum	ELISA for HIV 1 and 2	Positive
Serum	RPR	Positive in >1:32 dilution
Serum	TPHA MGIT (BACTEC)	Positive in >1:1280 dilution

KOH: Potassium hydroxide, HSV: Herpes simplex virus, VZV: Varicella zoster virus, CMV: Cytomegalovirus, MGIT (BACTEC): Mycobacteria growth indicator tube, ELISA: Enzyme-linked immunosorbent assay, HIV: Human immunodeficiency virus, RPR: Rapid plasma reagin, TPHA: *Treponema pallidum* hemagglutination test

This case emphasizes that syphilitic uveitis can present as a feature of undetected HIV. One needs to have a high degree of suspicion to arrive at a correct diagnosis and to institute prompt therapy.

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Conflicts of interest

There are no conflicts of interest.

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