

Sir,
**Paradoxical worsening of ocular tuberculosis
 in HIV patients after antiretroviral therapy**

Patients infected with human immunodeficiency virus (HIV) with coexisting ocular infections develop enhanced intraocular inflammation following antiretroviral therapy. Such reactions are referred to as 'immune recovery uveitis' (IRU). IRU is reported in HIV patients with concurrent cytomegalovirus (CMV) retinitis, tuberculosis and Varicella zoster ocular infection.¹⁻⁴ We describe a case of severe form of IRU resulting in perforation of the globe following highly active antiretroviral therapy (HAART) and antitubercular treatment.

Case report

Forty-year-old male patient presented with defective vision, pain, and redness in his right eye for 15 days. Ocular examination revealed mutton fat keratic precipitates, 3 mm hypopyon and 2+ cells and flare in the anterior chamber, nodules on iris, and posterior synechiae (Figure 1a). Investigations revealed a positive serology for HIV and sputum and anterior chamber fluid positive for acid fast bacilli. Pulmonary infiltrates on chest radiograph were suggestive of tuberculosis. Patient was started on zidovudine 300 mg, lamivudine 150 mg, efavirenz 600 mg, rifampin 600 mg, isoniazid 300 mg, pyrazinamide 1200 mg, and Ethambutol 800 mg. Three weeks after initiation of HAART and antitubercular treatment, he developed severe cough, pain, and complete loss of vision in his right eye. Radiological worsening of pulmonary infiltrates was seen. Right eye showed congestion, fibrinous exudates in anterior chamber and an iris prolapse at 6 O' clock limbus (Figure 1b). A diagnosis of immune recovery uveitis resulting in perforation of the globe was made. Oral steroids were added; however, eye became pthical.

Comment

Initiation of antiretroviral therapy results in immune reconstitution and enhanced immuno-pathological response against systemic or ocular opportunistic pathogens. Such immune enhancement results in either appearance of new clinical signs or exacerbation of existing manifestations.¹⁻⁴ In patients with coexisting HIV and systemic tuberculosis, initiation of concomitant antitubercular and antiretroviral therapy has resulted in paradoxical worsening and clinical deterioration.³⁻⁶ The pathogenesis of paradoxical worsening of tuberculosis is not well understood. Corticosteroids might help in reducing inflammation. Alternatively, delaying the administration of HAART for the first 2 months of

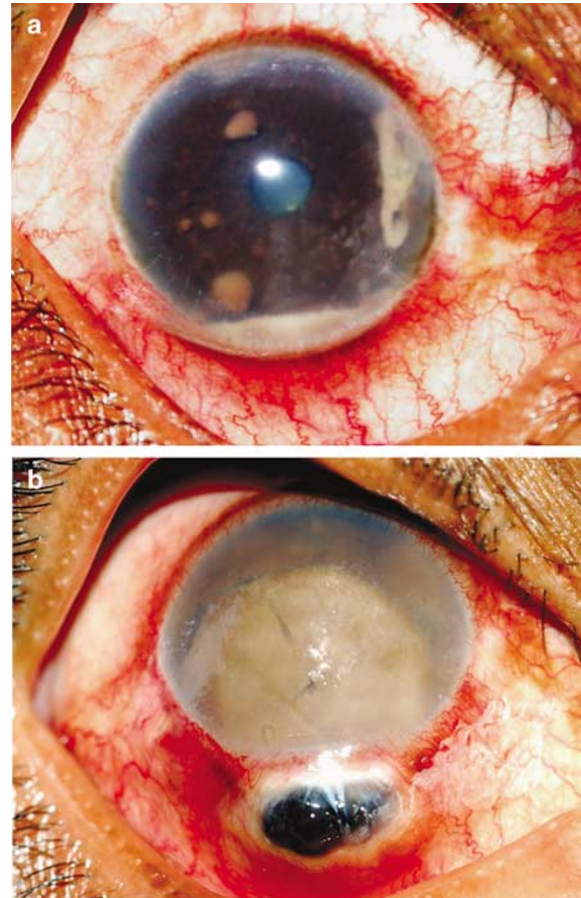


Figure 1 (a) Right eye showing granulomatous keratic precipitates, iris granuloma, and hypopyon. (b) Fibrinous exudates in the anterior chamber and iris prolapse through the perforation site at the limbus.

antituberculosis treatment is advised in order to increase adherence to both therapies.⁶ Owing to high prevalence of TB in HIV-infected patients, recognizing the possibility of immune enhancement and paradoxical worsening clinical picture is important for proper management.

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Sir,
Angle-closure caused by an anterior segment membrane

The differential diagnosis of the causes of angle-closure glaucoma may be difficult in eyes with complicated anterior segments. Accurate diagnosis, followed by

prompt and effective treatment, is essential to successful management.

We report a case of progressive anterior chamber (AC) shallowing after combined phacoemulsification with posterior chamber intraocular lens (PCIOL) and tube-shunt implantation. Based upon the ultrasound biomicroscopy findings, creation of a patent laser iridotomy deepened the AC and allowed incisional surgery to be avoided.

Case report

A 65-year-old woman with Axenfeld–Rieger syndrome and two failed trabeculectomies was referred for evaluation of progressive anterior chamber (AC) shallowing after combined phacoemulsification (posterior chamber intraocular lens (PCIOL)), and tube-shunt implantation. Her best-corrected visual acuity was 6/9 and intraocular pressure was 11 mm Hg OU. Slit-lamp biomicroscopy revealed scarred conjunctiva, band keratopathy, shallow AC, unobstructed tube tip, vitreous prolapse, and two surgical iridectomies that transilluminated. B-scan examination of the posterior pole was unremarkable. A translucent membrane with anterior bowing was present on the PCIOL surface (Figure 1a).

Ultrasound biomicroscopy (P40 UBM, Paradigm Medical Industries, Salt Lake City, UT, USA), performed with the patient supine using an immersion technique and a 50-MHz transducer, revealed a shallow AC, a thin membrane with an anterior convexity over the PCIOL, iridectomy obstructed by vitreous and a convex iris contour (Figures 2a, b and 3a), suggestive of pupillary block secondary to an occluded pupil and imperforate surgical iridectomies.

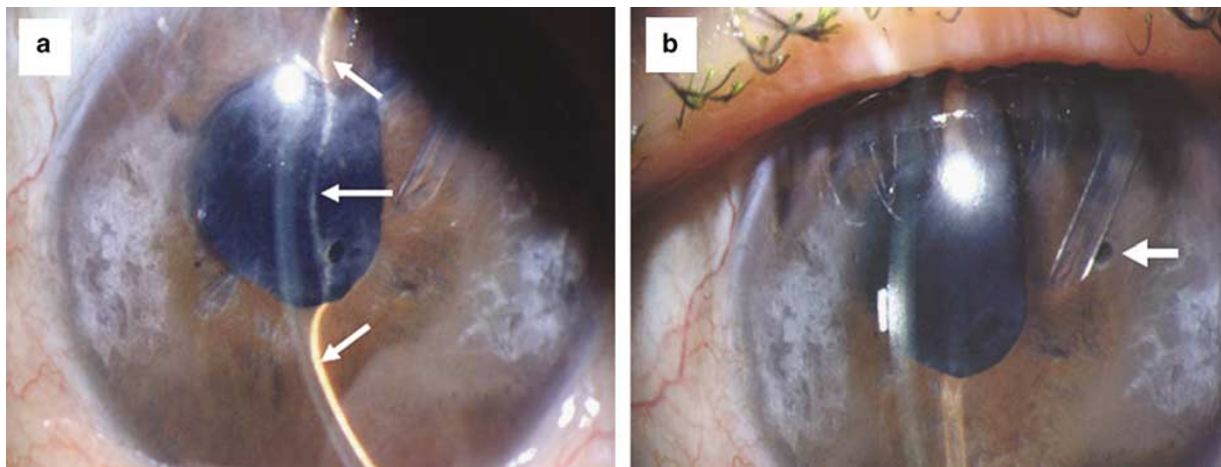


Figure 1 Anterior segment photographs of the left eye: (a) at presentation showing marked AC shallowing, extensive iris/cornea contact (oblique arrows) and bowed fibrin membrane over the PCIOL (horizontal arrow); (b) after argon laser iridotomy (horizontal arrow), showing a deep chamber and flattened iris and fibrin membrane contours.