

A Case Report of Isolated Ocular Tuberculosis

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Abstract

The term “Primary Ocular Tuberculosis” used when tubercular lesions are present only in eye without a systemic involvement. Although rare but cases of isolated ocular tuberculosis exist in literature. The most common manifestation is the inflammation of the uveal tract due to high blood supply. In the studies reporting high incidence rates, the diagnosis of TB uveitis was often based on a positive tuberculin skin test [TST].

Key Words: isolated ocular tuberculosis; eye; high blood supply; TB uveitis; TST

Introduction

The term “Primary Ocular Tuberculosis” used when tubercular lesions are present only in eye without any systemic involvement. Although rare but cases of isolated ocular tuberculosis exist in literature.[1] The most common manifestation is the inflammation of the uveal tract due to high blood supply. In the studies reporting higher incidence rates, the diagnosis of TB uveitis was often based on a positive tuberculin skin test [TST].[2] We are presenting here a rare case of isolated ocular tuberculosis.

Case Report

A 35 years old female patient presented in ophthalmological outdoor with complaints of right eye sudden onset pain associated with reddishness, itching, burning, watering with blurring of vision for past 2 months. On ophthalmological examination anterior uveitis was found. All other

examination were normal but patient was not improving despite of antibiotics and symptomatic. Then further investigation done to rule out other etiology. Human leukocyte antigen (HLA) B27 was negative but HLA B7 was positive (fig. 2), Interferon gamma radio assay (IGRA) quantitative-1.98 IU/mL (Positive). Interdepartmental discussion was done to make final diagnosis and start treatment. Magnetic resonance imaging (MRI) orbit (fig. 3) was done to evaluate extent of involvement which revealed normal reports. Chest X-ray was also normal (fig. 1), family or any contact history of tuberculosis was not found. After interdepartmental discussion isolated ocular tuberculosis was and patient was put on antitubercular drugs with topical steroids. Patient improved and symptoms disappear. On follow up examinations ocular examinations was done every time. After completing of regimen all symptoms were resolved and ocular examination were normal.



Figure 1: Chest x-ray

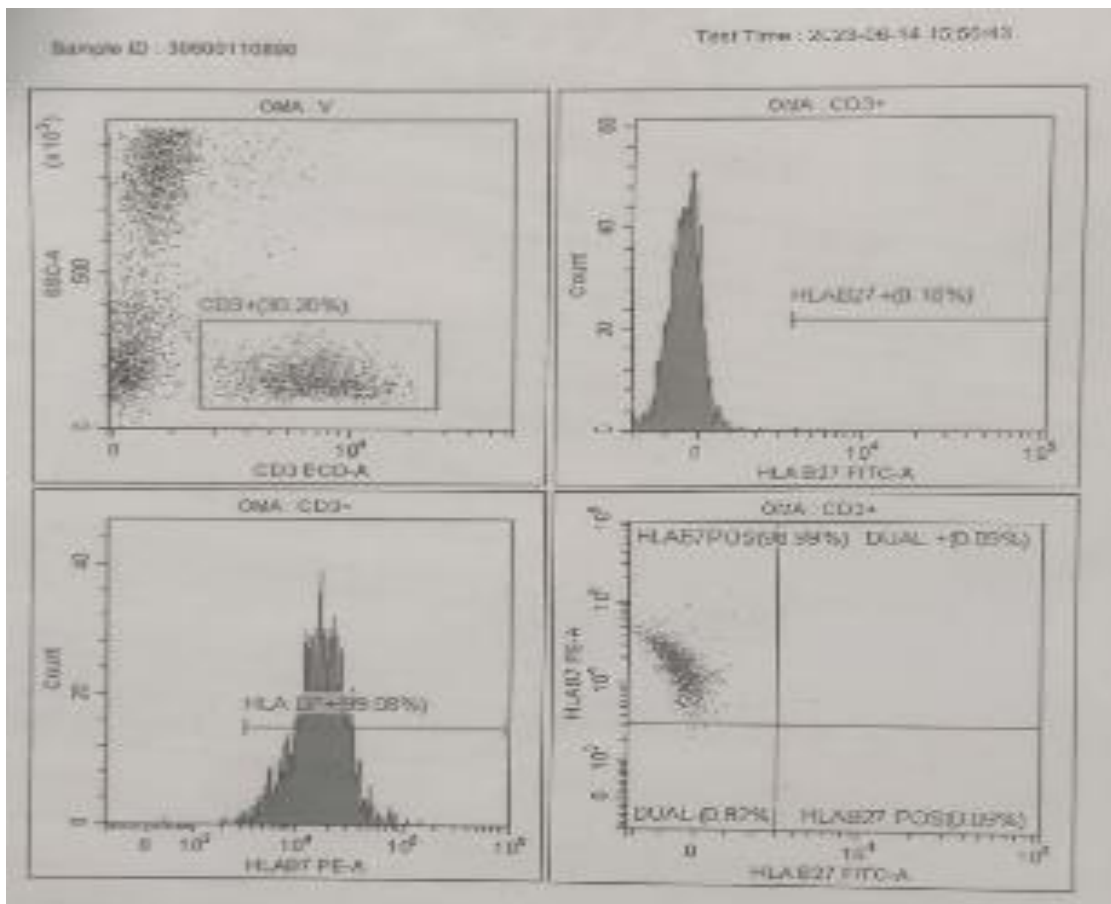


Figure 2: HLA B 27 and HLA B 7 titer



Figure 3: A and B: MRI of the Orbit was performed in multiple planes- no abnormalities detected

Discussion

Tuberculosis is caused by acid-fast bacteria belonging to Mycobacterium tuberculosis complex. Other than lungs it can affect any other tissue of body also. While mycobacterium can affect all areas of visual system but choroid is probably the most commonly infected structure in the eye. Intraocular tuberculosis is unique among all forms of tuberculosis in that it is paucibacillary.[3] The ocular manifestations of tuberculosis vary from involvement of the lid and adnexa, orbital cellulitis, dacryoadenitis, periocular lymphadenopathy to phlyctenules, conjunctival granuloma, scleritis, iridocyclitis in the anterior segment. The posterior segment can be involved in the form of vitritis, pars planitis, chorio-retinitis, choroiditis and optic neuritis. Sometimes ocular TB can be the only manifestation of the serious underlying systemic active tuberculosis.[4] In our case it was difficult reach any diagnosis because of all suspected initial investigations were normal except positive IGRA. Antibiotics and other systemic therapies did not help as patient not improved. After discussion with multi-departmental discussion and based on available investigations. We finally decided to put on antitubercular drugs. This is very interesting case because it describes heterogeneity and spectrum of tuberculosis. Despite of all initial possible etiologies we were unable to make any diagnosis and patient was not improved symptomatically. A definitive diagnosis requires an interdepartmental interaction and a high clinical suspicion.

Conclusion

Tuberculosis can present with variable clinical manifestations. This case highlights the facts that a seemingly innocuous eye involvement could be associated with significant systemic tuberculosis & thus requires thorough investigation & timely prompt treatment. [5] Early diagnosis & timely intervention helps in preventing the occurrence of vision threatening complications in case of ocular TB and dissemination. Physician must think about mycobacterium as a infective agent in a rare but important cause ocular symptoms especially where tuberculosis prevalence is high.

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