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Case Report

A Case of Choroidal Abscess with Posterior Scleritis as a Primary Clinical Manifestation of Tuberculosis

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Abstract

Tuberculosis is one of the most common systemic infections in country like India. We report a rare case of choroidal abscess with exudative retinal detachment and posterior scleritis presenting as a primary clinical manifestation of tuberculosis. Patient was erroneously diagnosed as a case of neuroretinitis. Based on Montoux test and contact history diagnosis of choroidal abscess with exudative retinal detachment of presumed tubercular etiology was made and patient was treated successfully. .

Keywords: *Ocular Tuberculosis; Choroidal Abscess; Exudative Retinal Detachment; Posterior Scleritis; Choroidal Granuloma*

Introduction

Tuberculosis is one of the most common chronic systemic infections in India. 80% of the times tuberculosis affects lungs and 20% times if affects extrapulmonary organs. Involvement of eye is exceedingly rare [1]. Here, we report a case of choroidal abscess with posterior scleritis presenting as a primary clinical manifestation of tuberculosis.

Case Report

A 28 year old married female presented to us with complaints of pain in left eye and diminution of vision in left eye since 15 days. Vision loss was insidious in onset and gradually progressive in nature. Patient had dull boring pain in left eye which increased on ocular movements. Patient had visual acuity of 6/6 in Right eye and 3/60 improving to 6/18 with pin hole in left eye. On clinical examination anterior segment was quiet in left eye. There was no posterior synechiae, iris pigments on lens or vitritis. Relative afferent pupillary defect was present in left eye. Yellowish white submacular lesion was present along with exudative retinal detachment (Figure 1). Patient had no history of fever, weight loss, anorexia, chronic cough, swelling around neck or joint pains which could lead to provisional diagnosis. Patient was treated outside as a case of neuroretinitis and was started on Doxycycline but she didn't notice any improvement. We ordered blood investigations in which CBC, Hb, ESR came out within normal limits, Chest x-ray showed no clinically obvious pathology, VDRL and HIV were negative, her blood sugar was within normal range. However, Montoux test was very strongly positive 20 mm x 24 mm. FFA showed pooling of dye in sub retinal space (Figure 2). OCT and B scan showed subretinal choroidal mass on macular area with overlying exudative RD. There was sub-tenon's fluid around the area of choroidal mass. On detailed history taking, she told us that her elder sister had taken course of anti-tubercular therapy 8 years back. We advised HRCT to the patient but because of poor socioeconomic background she couldn't afford HRCT. Based on clinical picture, Montoux test and contact history with Koch's patient, she was diagnosed as a case of

choroidal abscess with posterior scleritis with exudative retinal detachment of presumed tubercular etiology. She was started on nine months of anti-tubercular therapy. Patient was lost to follow up for two weeks. After two weeks when she came, there was no evidence of exudative RD or sub-macular lesion (Figure 3). Her vision had improved to 6/9 unaided. OCT and B scan were suggestive of reduction in size of choroidal mass and sub-tenon's fluid. Patient was re-counseled regarding her illness and asked to remain on routine follow up and continue her anti-tubercular therapy.

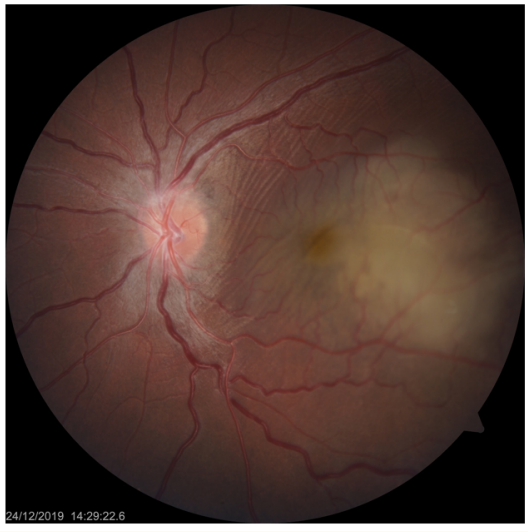

Figure 1: *Exudative retinal detachment with sub retinal lesion.*

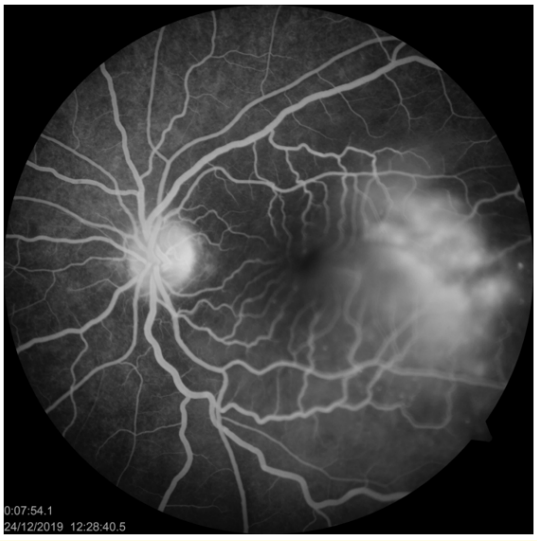

Figure 2: *Pooling of dye in sub-retinal space.*

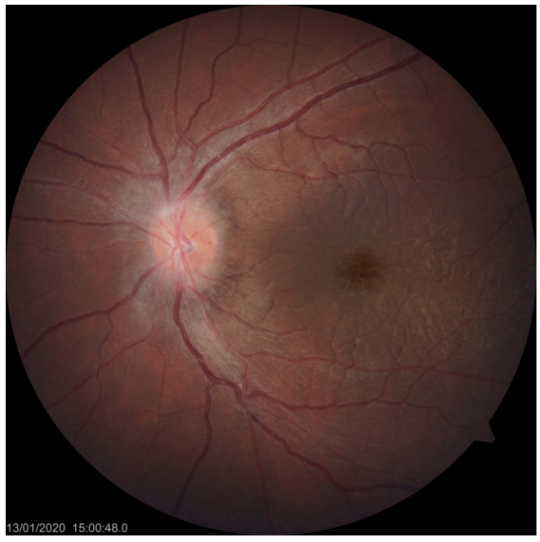

Figure 3: *Fundus picture after 2 weeks of Anti-tubercular therapy.*

Discussion and Conclusion

Ocular tuberculosis occurs because of hematogenous spread, delayed type hypersensitivity reaction or rarely direct extension. It can present in variety of ways out of which most characteristic signs are Broad based posterior synechiae, retinal vasculitis with or without choroidits and serpiginous like choroiditis [2]. Because of high vascularity and high oxygen concentration choroid is one of the most frequently affected sites in ocular tuberculosis. Generally, it presents as choroidal granulomas. Very rarely these granulomas can go under liquefactive necrosis and lead to choroidal and sub-retinal abscess [3]. If such cases are not managed timely then they can lead to endophthalmitis or panophthalmitis. A similar case was documented from other institute of India with disc edema and sub retinal abscess secondary to Koch's [4]. That case was earlier misdiagnosed as a case of optic neuritis, while our case was misdiagnosed as a neuroretinitis. Oral steroid was not started in our case a high chances of losing the follow up of the patients and high risk of patients becoming defaulter to koch's treatment. Also in our case history of Koch's exposure was 8 years back. Classical definition of tuberculosis exposure states that history of exposure to MTB in household or close contact within the preceding 24 months [5,6]. To the best of our knowledge it is the first case report of choroidal abscess with posterior scleritis with exudative retinal detachment due to presumed tubercular etiology.

This article shows that clinician must keep a high index of suspicion for intraocular tuberculosis in such cases as early and timely intervention can save the sight of the patients. Some of the very basic tests and proper history taking leads to diagnosis to presumed tuberculosis, as it is difficult to achieve confirmed microbiological or expensive radiological diagnosis where patients belong to poor socio economic strata. It is important to know whether patient will follow up properly or not and then start oral steroids as it can worsen the condition if taken without the cover of AKT.

Disclosure of Interest

The authors report no conflict of interest.

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