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Case report

PRIMARY CONJUNCTIVAL TUBERCULOSIS - A RARE CASE REPORT

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ABSTRACT

Tuberculosis is an endemic disease in India. Primary conjunctival tuberculosis is an uncommon condition and with better treatment of pulmonary tuberculosis it is now becoming extremely rare. Primary conjunctival Tuberculosis can present as unilateral conjunctivitis, hence laterality, chronicity and non-resolution of symptoms on treatment are indications for biopsy. In our patient conjunctival Tuberculosis was diagnosed on histopathology, which resulted in early implementation of antikochs' treatment and complete resolution of the disease condition.

Keywords: Conjunctiva, Tuberculosis, Histopathology.

INTRODUCTION

Tuberculosis is a major public health problem and is the second leading cause of death from infectious disease worldwide. [1] The recognized association of Tuberculosis with ocular disease dates to 1700s, when iris lesions in tuberculous patients were described. Recognition of choroidal tubercles was first noted between 1830 and 1844. The current incidence of ocular Tuberculosis is uncertain, about 1.4% of patients with Pulmonary Tuberculosis have ocular manifestations, but many patients with Ocular Tuberculosis have no evidence of Pulmonary Tuberculosis. [2,3] Ocular Tuberculosis occurs via hematogenous spread during pulmonary or extrapulmonary lesion and/or via local spread from an active sinus or meningeal infection.[3,4] In children, Primary ocular infection occurs when the bacilli enter the body through the conjunctiva. Most commonly reactivation of dormant lesions in ocular tissue leads to symptomatic disease. Additionally immune mediated Ocular Tuberculosis can occur due to hypersensitivity to Mycobacterium Tuberculosis antigens from a distant focus.[3] Depending on the immuno-allergic state of the patient, clinical picture is variable.[5] Ocular Tuberculosis is often unilateral and asymmetric and spreads to the central nervous system via optic nerve.[3] In areas endemic for tuberculosis, considering it in the diagnostic algorithm of non-resolving unilateral conjunctivitis would be worthwhile.[2]

CASE REPORT

A 45 year male from a middle class family presented with persistent redness and itching in left eye for 15 days. His ophthalmic examination was within normal limits. He was treated for allergic conjunctivitis. Subsequent follow up after 15 days did not show any improvement. He was asked to continue same treatment. He came after three months with persistent redness and formation of a small nodular firm mass on bulbar conjunctiva. His systemic examination did not reveal any abnormality. Laboratory investigations showed lymphocytic leukocytosis with markedly raised ESR (37 mm at one hour). He was advised to get the mass excised. He was physically fit for surgery and under local anaesthesia the mass was

excised and sent for histopathological examination. The postoperative period was uneventful.. The biopsy report suggested tuberculous granulomatous lesion. Clinical examination, lab investigations, x-ray chest and USG abdomen ruled out any evidence of primary tuberculosis. He was treated with standard four drugs anti tubercular therapy for six month. Morphology: Received single small grayish soft tissue bit, processed as such. Microscopic features: Section stained with H & E showed stratified squamous epithelium of conjunctiva and beneath fibro collagenous stroma along with many granulomas composed of central caseous necrosis, surrounded by epithelioid cells, lymphocytes and Langhan's type giant cells with areas of fibrosis (Fig. 1). Langhan's giant cells are more suggestive of tuberculous granulomas. Ziehl Neelsen stain did not reveal acid fast bacilli, so the diagnosis of tuberculous granuloma was made.

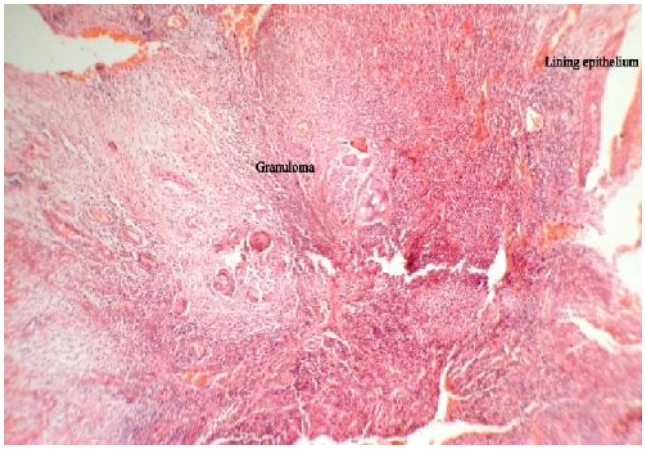

Fig. 1 shows lining epithelium and beneath granulomas composed of epithelioid cells, lymphocytes, Langhan's giant cell and caseous necrosis. (H & E: 4x X 10x).

DISCUSSION

Despite all advancement made in treatment and management, tuberculosis still remains one of the major public health problems, mainly in developing countries. The incidence of drug sensitive and multi drug resistant tuberculosis is very high in India.[1] The usual presentation is pulmonary tuberculosis, but extrapulmonary tuberculosis is also important clinical problem, which is difficult to diagnose.[1,6] In current clinical practice, the incidence of active tuberculous lesions of the conjunctiva are so rare that the physician's index of suspicion is very low.[2] Primary tuberculous conjunctivitis occurs as a result of an exogenous infection. There are five clinical types - ulcerative, nodular, hypertrophic, granulomatous, and pedunculated. It may occur more commonly in young than old patients, and may be associated with regional lymphadenopathy. It runs a chronic course, and may heal with scarring or may spread to involve adjacent tissues and structures.[2,4]

Spread of infection from a contiguous focus leads to secondary form of tuberculous conjunctivitis. There are six clinical types - ulcerative, nodular, hypertrophic, granulomatous, pedunculated, and lupoid. It may occur more commonly in adults than children and may not be associated with regional lymphadenopathy. In both instances, the diagnosis is confirmed on histological examination.[4]

In our patient despite the use of broad spectrum antibiotics, steroids and anti allergic drugs, the redness still persisted with formation of conjunctival mass and was eventually diagnosed as of tuberculous origin only after histopathological examination of the excised conjunctival mass. Criteria for diagnosis of ocular tuberculosis are not well established and the same may also explain the variation of reported incidence and epidemiology of ocular tuberculosis over time and geography.[3] Treatment of tuberculosis is curative regardless of site, if it is instituted early and if the organism remains sensitive to all first-line antituberculous drugs.[6] There was proper response to four drug anti-tubercular regime in our patient.

CONCLUSION

We would like to conclude that although ocular tuberculosis is rare, it is therefore necessary to consider it in any unusual chronic conjunctivitis, with or without regional lymphadenopathy, particularly in endemic areas where the incidence of tuberculosis is still high.

Conflict of Interest: Nil

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