A case of primary Eyelid Tuberculosis: A rare entity

Sudipta Chakrabarti[1,*], Senjuti Dasgupta[2], Supriya Sarkar[3]

[1]Associate Professor, ESI PGIMSR, Kolkata, [2]Assistant Professor, Dept. of Pathology, Medical College, Kolkata, [3]Professor, Dept. of Chest Medicine, NRS Medical College & Hospital, Kolkata, West Bengal

***Corresponding Author:**
Email: sudiptach@gmail.com

Abstract

Ocular tuberculosis may affect virtually any intraocular tissue and ocular adnexa and usually manifest in the form of conjunctivitis, scleritis, episcleritis, corneal phlycten, interstitial keratitis, granulomatous uveitis, orbital granuloma, pan-ophthalmitis, and optic nerve involvement. However, primary eyelid tuberculosis is an extremely rare condition with only sporadic cases having been previously reported. Such a rare case identified in a 65 year old female is being reported here. Prompt diagnosis and institution of therapy are required in case of eyelid tuberculosis to avoid the serious consequences that occur in untreated cases.

Keywords: Eyelid tuberculosis, Clinical features, Cytology.

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Introduction

Tuberculosis is one of the most common infectious diseases causing mortality and morbidity in developing countries like India. The disease primarily affects lungs, but the kidneys, lymph nodes, brain, bowels, skin, are other common sites[(1)]. Ocular involvement by tuberculosis usually manifest as conjunctivitis, scleritis, episcleritis, corneal phlycten, interstitial keratitis, granulomatous uveitis, orbital granuloma, panophthalmitis, and optic nerve involvement[(2)]. However, tuberculosis affecting the eyelid alone is very rare. Only few sporadic cases of primary lid tuberculosis have been reported in literature[(3)]. Common lesions that may mimic tuberculosis of eyelid include psoriasis and eyelid dermatitis[(4)]. Sometimes the clinical presentation may resemble that of basal cell carcinoma[(5)]. A case of primary tuberculosis of the left upper eyelid in an elderly female patient is being presented.

Case History

A 65-year-old female patient presented with a red colored painless swelling on the left upper eyelid for the last one and a half years. She stated that the lesion was initially small, but had gradually increased in size over a period of six months. There was no history of trauma to the region. She had no fever, cough or any other tuberculosis related symptoms. She also did not have any significant past medical history.

On examination, the patient was found to be in good general health. Local examination showed that the reddish to grey colored nodular plaque was 2.5 cm × 1.5 cm in size and a part of it was covered with crusted secretions (Fig. 1). No regional lymphadenopathy was detected.

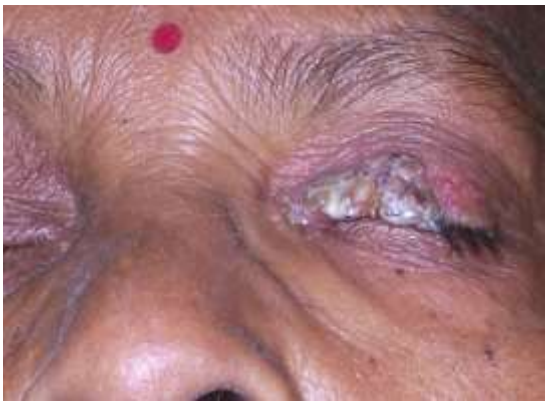

Fig. 1: Reddish to grey colored nodular plaque on the left upper eyelid

Complete haemogram showed that the patient had microcytic hypochromic anemia. Her hemoglobin level was found to be 7 g/dl and the differential count was within normal limits. Erythrocyte sedimentation rate (ESR) was 28 mm in the first hour.

Scrapings were taken from the lesion and aspiration was performed. The smears were stained with Leishman- Giemsa (LG) stain and Ziehl-Neelsen (Z-N) stain. The LG stained smears showed squamous epithelial cells, lymphocytes and neutrophils in a necrotic background. Z-N stained smears revealed presence of acid fast bacilli (AFB) (Fig. 2).

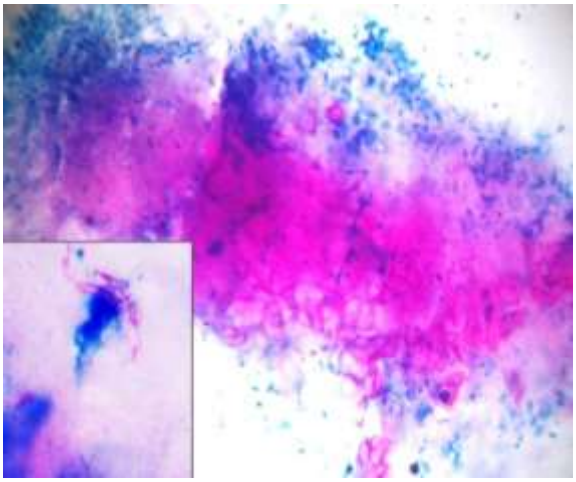

Fig. 2: Cytologic smear showing squamous epithelial and inflammatory cells in a necrotic background (LG stain, ×400)

Thorough clinical examinations did not reveal any other focus of tubercular infection. Mantoux test was then advised for corroboration. It yielded positive results with an induration measuring 20 × 18 mm. Chest radiograph of the patient was within normal limits (Fig. 3). Abdominal ultrasonography did not reveal any suspected tubercular lesion. A diagnosis of primary eyelid tuberculosis was therefore rendered.

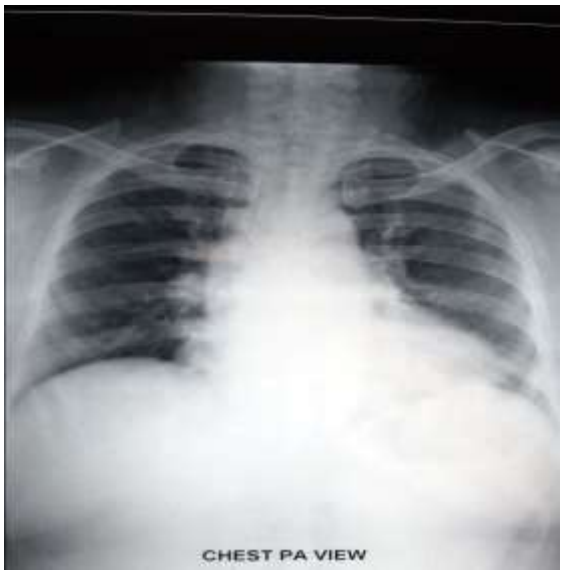

Fig. 3: Chest radiograph showing features within normal limits

The patient was prescribed anti-tubercular drugs for a period of six months. The patient was lost in follow up.

Discussion

Tuberculosis is still a dominant health problem in developing countries. In industrialized nations, there has been a resurgence of tuberculosis due to a combination of factors which include immigration from endemic regions, the Human Immunodeficiency Virus (HIV) pandemic and poverty[6].

Ocular tuberculosis results from the haematogenous dissemination of mycobacteria and may affect virtually any intraocular tissue and ocular adnexa[7]. Most common manifestation of ocular tuberculosis is anterior uveitis or choroiditis. Primary lid tuberculosis is a very rare condition and maybe acquired following minor trauma or contact with infected material. Despite the rarity of the disease, the requirement for early diagnosis and institution of therapy cannot be overemphasized because prolonged untreated eyelid tuberculosis leads to eyelid and tarsal plate destruction, formation of abscess, skin fistula and cicatrical ectropion[8].

Clinically, the differential diagnoses of eyelid tuberculosis include psoriasis and eyelid dermatitis[4]. Wyrwicka A et al reported a case of eyelid tuberculosis, in which the lesion clinically resembled basal cell carcinoma[5].

Eyelid tuberculosis may present as a papule, plaque, swelling or abscess[3,4,9]. In our case, the patient presented with an erythematous, painless plaque. Thorough examination did not reveal any other focus of infection in the patient.

This disease can affect any age group. No definite sex predilection has been identified[4]. Our patient was a 65 year old female who had no significant past medical history.

The diagnosis of ocular tuberculosis is difficult, especially in cases of intraocular disease. This is because intraocular biopsy is risky in the face of active inflammation. However, in case of eyelid lesions, scrapings and aspirations maybe performed easily. Definitive diagnosis is based on demonstration of AFB (tubercle bacilli)[3,10]. In this case, cytological examination of the scrapings and aspiration material revealed squamous epithelial cells, lymphocytes and neutrophils in a necrotic background. Z-N stained smears showed presence of AFB.

Conclusion

We conclude that tuberculosis of the eyelid is an extremely rare but curable condition. Prompt diagnosis and early institution of therapy are required to prevent the serious ocular complications that inevitably occur in neglected and untreated cases.

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