Letter to the Editor

An Unusual Presentation of an Uncommon Infection—A Case of Orbital Actinomycosis

Dear Editor ,

Orbital actinomycosis is a rare infection. The source of infection may be from adjacent structures like the oral cavity or paranasal sinuses or external following trauma[1,2,3,4]. This is a case of orbital actinomycosis which presented one year after a head injury.

A 21 year old man presented with a painless swelling of the right upper eyelid of two weeks duration. There was no history of any visual disturbances. On further questioning, the patient gave a history of having had a laceration injury of the scalp a year earlier which had been sutured and he had been given antibiotics. On examination a firm, non-tender, nodular swelling measuring 4 x 2 cms was seen in the region of the right upper lid. Oral, ear, nose, throat and systemic examinations were normal.

Magnetic resonance imaging (MRI) revealed an ill-defined lesion at the superior and lateral aspect of the right orbit. MRI suggested a diagnosis of either pseudotumour or lymphoma Fine needle aspiration cytology was done and was suggestive of an organizing hematoma. The patient was put on an antibiotic but there was no improvement. Biopsy was done and sent for histopathological examination. Microscopy showed granulation tissue with a colony composed of basophilic filaments surrounded by club-shaped eosinophilic material characteristic of Actinomycosis. Gram's staining showed gram-positive bacterial filaments and the surrounding reaction was gram-negative. The organisms were nonacid fast. Patient was given intravenous penicillin G for two weeks, followed by amoxycillin for six months and he recovered completely.

Orbital lesions pose a great challenge to ophthalmologists. In orbital swellings following trauma, the differential diagnosis includes hematomas and abscesses. Orbital pseudotumours and lymphomas unrelated to trauma are also to be considered.

Orbital actinomycosis is a very rare condition, with only a few cases reported in literature. [1,2,3,4] Actinomyces are filamentous, branching, gram-positive bacteria normally inhabiting the oral cavity. They exhibit low pathogenicity and require mucosal injury to cause disease. While trauma is the commonest predisposing factor, orbital involvement is often secondary to infections of the paranasal sinuses. The usual presentation is as a painless proptosis often mimicking a malignancy. The time of presentation may vary from few weeks to months. Our patient presented after an unusual delay of one year. The patient probably had a primary inoculation at the time of the earlier scalp injury. The delayed presentation in this case could be due to the slow progression typical of actinomycotic infections [1,2,3,4].

Actinomycotic infection is best treated with high dose intravenous penicillin G for two weeks, followed by oral penicillin or amoxicillin for six months. The need for long-term antibiotic treatment is for complete eradication[1,2,3,4]. Our patient showed a good response to this treatment. This case highlights the unusual presentation of orbital actinomycosis, and the role of histopathology in the diagnosis.

Prema Saldanha[1], Julian Saldanha[2]

1. Professor, Department of Pathology, yenepoya Medical College, Yenepoya University, Mangalore, Karnataka, India.

2. Senior Specialist, Department of General Medicine, Government Wenlock Hospital, Mangalore, Karnataka, India.

Correspondence: Dr Prema Saldanha
Email ID: Premasaldanha@yahoo.co.in

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