ABSTRACT

Tuberculosis is an infectious disease caused by Mycobacterium tuberculosis that still remains a public health problem in many countries. Its incidence in industrialized countries has been increasing during recent years due to HIV infection and immigration. Tuberculosis affects primarily the lung and lymph nodes but has the potential to infect almost every organ system and unusual presentations raise difficulties in differential diagnosis. The authors report a rare case of tuberculosis affecting the nasolacrimal system.

Keywords: tuberculosis, dacryocystitis, lacrimal sac

INTRODUCTION

Tuberculosis is an infectious disease caused by Mycobacterium tuberculosis (M. tuberculosis) that still remains a public health problem in many countries. Its incidence in industrialized countries has been increasing during recent years due to HIV infection and immigration. Tuberculosis affects primarily the lung and lymph nodes but has the potential to infect almost every organ system and unusual presentations raise difficulties in differential diagnosis. Ocular tuberculosis may be the first or unique manifestation of disease. In this location it may involve eyeball appendages of the eye like lacrimal apparatus or orbit. Very few cases of tuberculous dacryocystitis have been reported in the literature. Culture of M. tuberculosis is required for the definitive diagnosis.

The purpose of this paper is to call attention to an unusual diagnosis of a lacrimal apparatus infectious condition.

CASE REPORT

A 60-year-old woman, with type 1 diabetes, presented to the emergency department complaining of tearing and a right medial canthal mass that was growing for 2 months (Figure 1). She had a history of recurrent conjunctivitis and blepharitis on the right eye without response to conventional treatment. Ophthalmologic exam revealed in the right eye epiphora, blepharitis and a palpable and painless medial canthal mass, without purulent discharge, displacement of the globe or other alterations. Nasal examination was unremarkable. Laboratory tests were normal, without eosinophilia. C-ANCA and p-ANCA were negative as well as...
Tuberculosis of the lacrimal sac.

Soares MT et. al. Tuberculosis of the lacrimal sac. Granulomatosis with polyangiitis, eosinophilic granulomatous diseases such as sarcoidosis, granulomatosis with polyangiitis, and other granulomatous diseases can affect the lacrimal system and differential diagnosis includes sarcoidosis, granulomatosis with polyangiitis, and haematogenous infection. In this patient the cause is not well known. Immunosuppression is a major risk factor to develop tuberculosis and the patient had a history of pulmonary tuberculosis, which could contribute to lower her immunity. Risk factors such as HIV infection, past history of pulmonary tuberculosis or recent contact with a person infected with tuberculosis were absent. Regarding its rarity and lack of specified symptoms, diagnosis is often delayed.

Other systemic diseases can affect the lacrimal system and differential diagnosis includes other granulomatous diseases such as sarcoidosis, granulomatosis with polyangiitis, and eosinophilic granulomatosis with polyangiitis, chronic infections like syphilis, leprosy, shistosomiasis and also neoplasms. If a granulomatous disease is thought to be the cause, nasal symptoms and findings may be present but it doesn’t always happen, like in our case. Computed Tomography findings may contribute to the diagnosis but they are not specific for nasolacrimal tuberculosis. Microbiological culture is therefore mandatory for the diagnosis. The BD MGIT Tbc identification test is a immunochromatographic assay that can confirm the presence of M. tuberculosis complex from liquid culture, by detecting MPT64, a protein that is specifically secreted during growth by the M. tuberculosis complex cells. It is a rapid, sensitive (95-100%) and specific (100%) tool.

In our case, a high index of suspicion was crucial to ensure a quick and proper treatment.

CONCLUSION

Tuberculous dacryocystitis is extremely rare. In order to perform early and adequate treatment a high index of suspicion is required for the diagnosis, as unusual presentations of the disease still occur. In this case the main treatment is anti-tuberculous therapy.

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References