Acta Otorrinolaringol Esp. 2009;**60(5):**372-376

Acta Otorrinolaringológica Española

www.elsevier.es/otorrino

BRIEF REPORT

# Tonsillar actinomycosis manifested as expectorated debris

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Received October 17, 2008; accepted January 9, 2009
Available online September 5, 2009

**KEYWORDS**
Actinomycosis;
Tonsillar fossa;
Tonsillar debris;
Surgical approach

**Abstract**
Actinomycosis is a festering bacterial infection frequently affecting the cervicofacial area, for which the germs responsible are Gram-positive bacilli of Actinomyces sp. We present a case of atypical presentation of actinomycosis, in the shape of repetitive mass in the tonsillar fossa with complex therapeutic management.


**PALABRAS CLAVE**
Actinomicosis;
Lecho amigdalar;
Detritus amigdalar;
Abordaje quirúrgico

**Actinomicosis en lecho amigdalar manifestada como expectoración repetida de detritus**

**Resumen**
La actinomicosis es una infección bacteriana supurada que afecta frecuentemente al área cervicofacial, cuyos gérmenes causales son bacilos grampositivos del género Actinomyces sp. Exponemos un caso de presentación atípica de actinomicosis, en forma de masa recidivante en el lecho amigdalar con manejo terapéutico complejo.


## Introduction

Actinomycosis is an endogenous infection caused by gram-positive bacteria with filamentous appearance of the genus *Actinomyces* sp, of which the most common pathogen is *A israelii*. It is characterized by the formation of slightly painful pseudotumours, of slow growth, which may progress into abscesses and form fistulous tracts. In 55% of cases they are located in the cervicofacial region; in 20%, thoracic; and in 15%, abdominal-pelvic. The atypical locations (base of tongue, larynx, central nervous system, bone) are rare and difficult to diagnose because they tend to simulate malignant processes.[1]

Microbiological growth is not easy and there is rarely hematogenous dissemination. It is often diagnosed by

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0001-6519/$ - see front matter 

identifying "sulphur granules" in the tissue or the pus from the fistula. The treatment of choice is penicillin at high doses for several weeks. When there are abscesses and fistulous tracts, then oral treatment is required for several months. Surgery is used in case of fistula, excision of encysted pseudotumoral forms which are not controlled with medical treatment, excision of bone sequestering or removal of necrotic tissue.[2]

## Clinical report

Woman aged 53, with a history of tonsillectomy in childhood and no recent dental manipulations. Attended consultation for sensation of a foreign body in the right side of the pharynx, with 1 year of evolution and expulsion from the mouth of white material in at least three occasions. The otolaryngologist extracted a cumulus of detritus from the right tonsillar bed, and on the adjacent area appeared a wall with inflammatory aspect. Histopathological examination of the sample reported a mass (1.5 1.5 1 cm) of clusters of *Actinomyces*.

During the 6 months of follow-up she presented 3 episodes of expulsion, by coughing or manually by the otolaryngologist, of masses of about 1 cm with the same characteristics. Physical examination highlighted the repeated viewing of an accumulation of white detritus in a cavity in the upper pole of the right tonsillar bed (Figure 1)—a cavity attributable to abnormal scarring after tonsillectomy—. Oral hygiene was good. The laboratory tests and chest radiograph were normal. Serology for human immunodeficiency virus was negative. The cervical CT scan identified a nonspecific prominence at the level of the right amygdala, without objectifying pathways in soft tissue or adenopathies.

Treatment was carried out with intravenous penicillin before and after surgery until healing. The surgical technique consisted of an exclusion from the tonsillar bed by intraoral approach, with incision at the level of the anterior pillar, partial section of palatoglossus muscle fibres and extensive removal of tissue from the tonsillar bed, including the area of anomalous cavity (Figure 2). After this, treatment was carried out with oral amoxicillin for 3 months.

**Figure 1** Image of the oropharynx with accumulation of *Actinomyces* in the cavity of the right tonsillar bed.

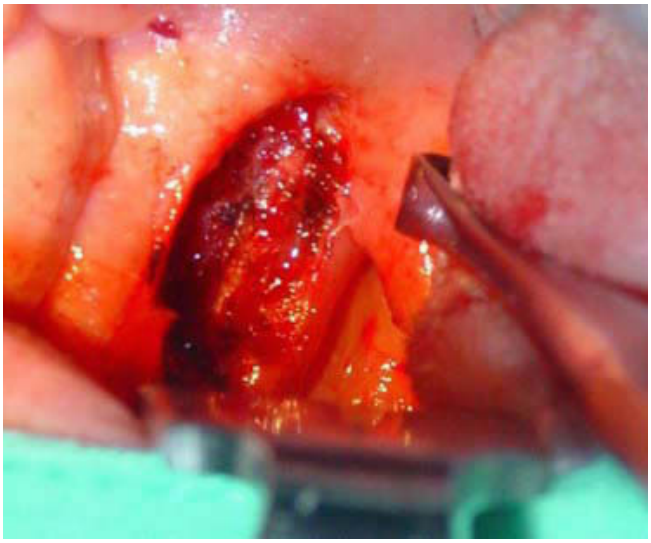

**Figure 2** Final image of the excision of the tonsillar cell.

## Discussion

The presentation of actinomycosis in the oropharyngeal region is not uncommon, although it is a rare disease. *Actinomyces* can colonize tonsillar crypts. The literature reviewed describes a prevalence of 6.7%35% in samples from tonsillectomies.[3,4] Blackburn et al[5] reported a case with the same presentation (expectoration of actinomycotic mass) in a patient who, unlike our case, had not undergone tonsillectomy.

Regarding the duration of penicillin treatment, there is wide variability in the literature, from 4 weeks to 1 year, in combination or not with surgery in case of abscesses.[6,7] In our experience, such early recurrence of the masses of *Actinomyces* was related to anatomical predisposition, and although no "strict" criteria for invasive disease were present, we did detect an inflammatory aspect adjacent to the location of the actinomycotic mass.

The speed of new formations and their unusual location made us consider a combined treatment of antibiotic therapy and surgery. We assumed that the objective of the antibiotic was not to eradicate a germ which is a saprophyte of the oral cavity and, in the patient, what would actually prevent recurrence would be surgery. Thus, we secured the removal of inflammatory tissue, as well as levelling the tonsillar bed to avoid renewed cantonment. With penicillin before and after surgery and then 3 months of oral amoxicillin, the patient has not presented recurrence in one year and is currently asymptomatic.

In conclusion, actinomycosis should be considered upon the discovery of indolent pseudotumoral formations, although the location and form of presentation are atypical,[8] and treatment must be individualized. The recurrence of the clinic and/or the presence of a cavity should raise

the possibility of surgery as an adjuvant to antibiotic treatment.

## Conflict of interests

The authors have indicated there is no conflict of interests.

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