Reporte de Caso – Case Report

Actinomycosis Mimicking Carcinoma of the Maxillary Sinus: A Case Report*

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Resumen
Reportamos un caso de actinomicosis maxilar que fue previamente diagnosticado como un carcinoma del seno maxilar.
Palabras claves: actinomicosis, maxilar, seno, carcinoma. *Rev Soc Med Quir Hosp Emerg Perez de Leon* 2007; 38(2):34-36.

Abstract
We report a case of maxillary actinomycosis that was previously diagnosed as a maxillary sinus carcinoma.
Key Words: actinomycosis, maxillar, sinus, carcinoma. *Rev Soc Med Quir Hosp Emerg Perez de Leon* 2007; 38(2):34-36.

Introduction

Actinomyces spp. are higher prokaryotic bacteria belonging to the family *Actinomyceataceae*. When they were first described in the early 19th Century, they were misclassified as fungi [1]. The name *A. bovis* was given to a ray-like organism found in purulent material obtained from cattle mandibles; the word "actinomycosis" was derived from the Greek terms aktino, which refers to the radiating appearance of a sulphur granule, and mykos, which labels the condition a mycotic disease. The first published clinical description of the human form of the disease appeared in 1857 [1]. The thoracic form was described 25 yrs later, but it was not until 1891 that *A. israelii*, the main species responsible for the human disease, was isolated [1]. The classic clinical picture of the disease actinomycosis is that of its commonest form, the cervicofacial type, in which a middle-aged male patient presents with a large mass on the jaw, not too dissimilar to the lumpy disease originally described in cattle. In fact, the infection can involve virtually every organ or body site [1-5].

Human actinomycosis may pose a diagnostic problem at times and is often mistaken for a neoplasm [6-9].

Actinomycosis involving the maxilla usually is seen as a localized intraoral infection in contrast to classical cervicofacial actinomycosis [10-13]. Formation of draining sinuses, local swelling, and pain are the most common presenting symptoms [14,15].

Many of the cases are diagnosed following endodontic procedures, suggesting that such procedures might be responsible for introducing the organisms into the periapical tissues or that the organisms might be responsible for some cases of endodontic failure [14-16].

Recent reports have been highlighting the importance of bearing in mind the fact that

certain rare, chronic, suppurative granulomatous infections, like actinomycosis, may mimic malignancy [4-10].

For this reason we report a case of maxillary actinomycosis that was previously diagnosed as a maxillary sinus carcinoma.

Case Report

A fifty-nine year old male was clinically diagnosed as a case of carcinoma of the maxillary sinus on the basis of history, clinical presentation and radiological findings.

Tissue biopsy realized 10 years ago diagnosed a periapical cyst, and a second one performed 6-months ago concluded as chronic sinusitis with moderated epithelial dysplasia vs a maxillary sinus carcinoma.

The lesion was a tumor of 2.5 cms in diameter. A new biopsy was performed finding a chronic severe inflammation with an ulcerated mucosa, bits of granulation tissue and gram-positive sulfur-containing bacteria, compatible with infection due to *Actinomyces sp*.

Patient was successfully treated with amoxicillin/clavulanate.

Discussion

The diagnosis in this case was based on histological report because of location and development of the lesion with unusual history.

In cases of persistent oral infection the diagnosis of actinomycosis should be actively attempted through microbiological and histological examination [17-19].

As is shown by hematoxylin and eosin stain, in contrast to the *Nocardia* species, *Actinomyces* species histopathologically are basophilic in nature and terminate in eosinophilic clubs as a predictive feature [20-22].

The clinical and radiological findings in these cases closely resemble metastatic tumors and other infectious processes [5-15].

Histopathological diagnosis of actinomycosis is important because the clinical and microbiological studies cannot always demonstrate the causative microorganism and primary infection source [18-22].

Ampicillin, amoxicillin or penicillin associated with surgical excision is the best therapy, but high doses must be used for a long time. Doxycicline, ceftriaxone, clindamycin, erythromycin and chloramphenicol have been reported with satisfactory response as alternative treatments [23].

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