Actinomycosis in palatine tonsil mimicking a tonsillolith: A case report

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ABSTRACT Actinomycosis of the jaw is a well known infection characterized by a paramandibular draining sinus tract, trismus, and characteristic woody type of fibrosis. Various features of actinomycotic infections have been reported in the head and neck areas. We present a 70-year-old man of actinomycosis in palatine tonsil mimicking a tonsillolith with recurrent episodes of palatine tonsillar concretion for 10 years.

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Key words：**Actinomycosis, Tonsil, Sulfur granule**

INTRODUCTION

Actinomycosis of the jaw is a well known infection and various features of actinomycotic infections have been reported in the head and neck areas. We present a rare case of actinomycosis in palatine tonsil mimicking a tonsillolith with recurrent episodes of palatine tonsillar concretion.

CASE REPORT

A 70-year-old man who presented with recurrent episodes of left palatine tonsillar concretion for 10 years was referred to the Kawasaki Medical School Hospital.

The concretions had spontaneously fallen off from the palatine tonsil over a period of several weeks and had reappeared. A panoramic radiogram revealed a horizontally impacted left upper third

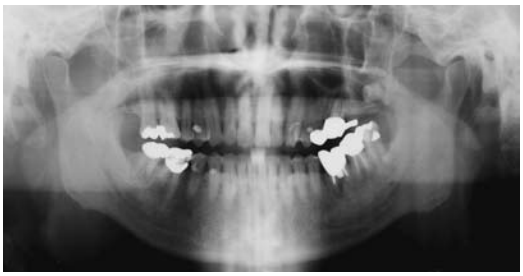

Fig. 1. Panoramic radiogram at the first examination

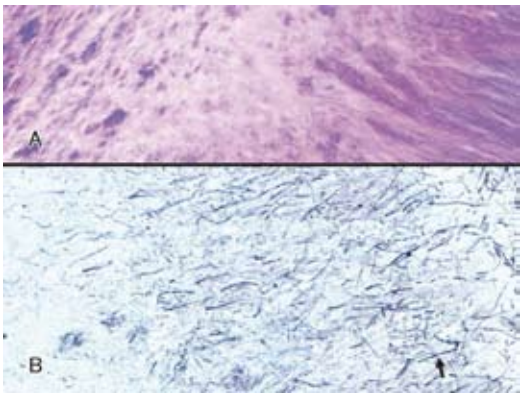

Fig. 2. Tonsillar concretion showing actinomyces "sulfur" granules
(A) Hematoxylin and Eosin stain（×200） (B) Grocott stain（×200）

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molar with no inflammatory findings (Fig.1). A yellowish, irregular, soft concretion of about 6 mm was easily removed from the left palatine tonsil; the palatine tonsil had not hypertrophied. This material was suspected of being a tonsil plug or tonsillolith. Histological examination showed sulfur granules as aggregates of bacilli arranged in a radiating fashion with no calcification (Fig.2A). These bacilli were filamentous branching microorganisms (black arrow), suggesting the presence of actinomycosis (Fig.2B).

DISCUSSION

Actinomycetes species exist in the plaque deposits on the surface of the teeth, the gingival crevices, the crypts of the tongue, and the uninflamed tonsillar crypts[1)]. Actinomycosis of the jaw is a well known infection caused by an anaerobic, nonsporing, gram-positive Actinomycetes (i.e., *Actinomyces israelli* and *Actinomyces naeslundii*); this condition is characterized by a paramandibular draining sinus tract, trismus, and characteristic woody type of fibrosis. Various features of actinomycotic infections[2)] have been reported in oral cavity, salivary gland[3)], mandible, maxilla, paranasal sinuses, eye, ear, and neck areas.

Sulfur granules can be microscopically identified in the tonsillar tissue[1)], but large concretions of sulfur granules are rare[4)]. Based on the significant association of cryptitis with actionomycosis[1], there may be an association between persistence of focal chronic cryptitis and large sulfur granules in the present case. Furthermore, halitosis can be relieved by the removal of the tonsillar concretion[3)].

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Competing interests
None to declare.

Ethical approval
Not required.

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