## **CAS-101**



# TALE OF THE TWO TONSILLECTOMIES: ELUSIVE CASES OF TONSILLAR ACTINOMYCOSIS – A CASE SERIES

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#### Introduction

Tonsillar actinomycosis is a rare but important etiologic agent in chronic and recurrent tonsillitis. It is often under-recognized due to its indolent course and lack of distinctive clinical features. There have only been five case reports that links actinomycosis as a potential etiologic agent for chronic, recurrent and hypertrophic tonsillitis. While some consider it a saprophyte, accumulating case-level evidence supports a link to chronic, recurrent, and hypertrophic tonsillitis. It is usually diagnosed post-operatively through histopathological examination. A high degree of clinical suspicion is essential for appropriate diagnosis and management.



Figure 1-A (Case 1). H&E stain. 40x magnification.

Histopathologic section of left palatine tonsil showing prominent lymphoid follicles with germinal centers (purple lobules) and a central tonsillar crypt (white space). Actinomyces colony (red circle)

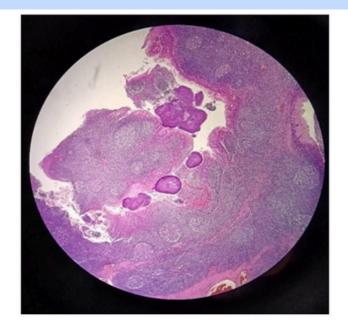


Figure 1-B (Case 1). H&E stain. 40x magnification. Histopathologic section of right palatine tonsil showing hyperplastic lymphoid follicles with prominent germinal centers and crypts filled with basophilic colonies consistent with Actinomyces species. The adjacent epithelium appears eroded and surrounding tissue demonstrates chronic inflammatory infiltrates.

#### **Case Presentation**

We report two cases of tonsillar actinomycosis presenting with chronic, recurrent, and hypertrophic tonsillitis. Both had a prolonged history of tonsillar enlargement and recurrent sore throat repeatedly treated with antibiotic therapy with minimal improvement. Diagnosis was confirmed post-tonsillectomy by histopathology revealing colonies of Actinomyces spp. with features of chronic suppuration and suppurative cryptitis. Following diagnosis, both patients were treated with intravenous penicillin 24 million units daily for two weeks followed by oral amoxicillin two grams daily for six weeks, resulting in favorable outcomes.

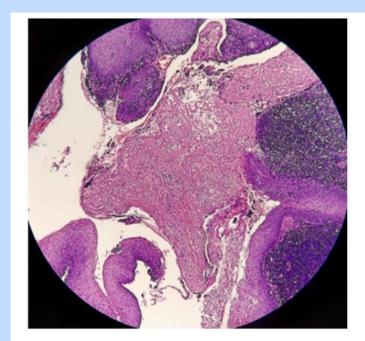


Figure 2-A (Case 2). H&E stain. 100x magnification. Microsection showing tonsillar crypt with necrotic debris and fibrinous exudate consistent with cryptitis.

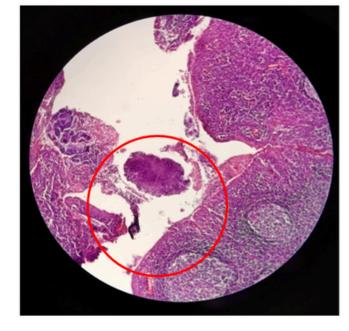


Figure 2-B (Case 2). H&E stain. 100x magnification. Microsection of left palatine tonsil showing basophilic colony (red circle) consistent with Actinomyces spp. within a crypt. The colony is surrounded by necrotic debris and degenerating neutrophils, indicating suppurative cryptitis.

### Conclusion

The two reported cases emphasize the importance of considering actinomycosis as a potential cause of chronic and recurrent tonsillitis, especially in patients unresponsive to standard treatment. Routine histopathologic examination of excised tonsils can aid in timely diagnosis which allows targeted antimicrobial therapy and prevent recurrence.