Tonsillar Actinomycosis

Tonsillar actinomycosis was diagnosed in an otherwise healthy adolescent girl. Tissue histopathologic examination revealed amorphous fragments composed of slender filaments. Gram stain and Gomori methamine silver fungal stain confirmed the presence of gram-positive bacilli and granules compatible with actinomycosis. Staining for acid-fast bacilli was negative. Diagnostic evaluation was performed to locate the source of the granules. Neck and chest radiographs were normal and sputum cytologic results were negative. Direct laryngobronchoscopy revealed enlarged tonsils with copious amounts of thick particulate material in the crypts of the right tonsil.

She remained symptomatic despite 6 weeks of oral amoxicillin therapy. Subsequently, tonsillectomy was performed, and postoperatively, she stopped coughing up debris and had no further choking spells. She completed 6 months of amoxicillin therapy. She has remained well and has not expectorated any further masses.

Actinomyces species are strictly anaerobic, gram-positive, nonsporulating bacteria that are considered part of the normal flora of the mouth and gastrointestinal tract. Actinomycosis can involve virtually any anatomical site.1,2 Infections are typically indolent and spread contiguously, crossing soft-tissue planes and organs with ultimate formation of draining sinus tracts. Cervicofacial infections, otherwise known as “lumpy jaw,” are the most common and frequently follow tooth extraction, oral surgery, or facial trauma.2,3

Actinomycosis of the tonsils is a rare and poorly defined clinical entity. The presence of Actinomyces species in both inflamed and uninflamed tonsils has been recognized.4 Pransky et al reviewed histologic preparations from 460 patients undergoing tonsillectomy or adenotonsillectomy for recurrent tonsillitis or obstructive tonsillar hypertrophy. Actinomycetes were more prevalent in the tissues of patients with obstructive tonsillar hypertrophy. Actinomycosis was diagnosed in a 12-year-old girl who presented with difficulty swallowing for 3 months and had a tonsillar mass suggestive of a tumor.6 Cervicofacial actinomycosis may rarely present as acute upper respiratory tract obstruction requiring urgent airway management.7 To our knowledge, only 1 previous case of tonsillar actinomycosis presenting with a history of expectorating debris has been reported.8 That was of an adult who complained of chronic productive cough for 3 months. He had 1 episode of expectorating a small whitish mass. Histologic examination revealed Actinomyces species. The patient was treated with a course of oral penicillin and had no further episodes. The symptoms in our patient were more pronounced since she was producing larger masses and more often and some of her coughing episodes were associated with significant choking. The coughing episodes and foreign body sensation were probably induced by aspiration or swallowing the masses that were formed in the right tonsil.

The optimal treatment of tonsillar actinomycosis is not clear. Although a patient may respond to antibiotic treatment, it is not clear if antibiotic treatment alone without surgical intervention is adequate. Our patient did not respond to antibiotic therapy alone and required tonsillectomy to clear the infection. Other forms of actinomycosis are usually treated with high-dose intravenous penicillin G or ampicillin for 4 to 6 weeks followed by high doses of oral penicillin, amoxicillin, erythromycin, clindamycin, minocycline, or tetracycline for a total of 6 to 12 months. However, surgical resection of the lesions and debridement of surrounding tissues and draining sinuses is necessary in most cases.2,3,9,10

Tonsillar actinomycosis should be considered in patients presenting with coughing associated with expectoration of particulate material. Tonsillectomy may be required in those patients who fail to respond to antibiotic treatment.

REFERENCES