

Abstract Form

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Project Title:	Mandibular Osteomyelitis due to <i>Aggregatibacter actinomycetemcomitans</i>

Research Category (please check one):

<input type="checkbox"/>	Original Research	<input checked="" type="checkbox"/>	Clinical Vignette	<input type="checkbox"/>	Quality Improvement	<input type="checkbox"/>	Medical Education Innovation
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Abstract

Purpose of Study: *Aggregatibacter actinomycetemcomitans* is frequently associated with localized aggressive periodontitis. *A. actinomycetemcomitans* is a Gram-negative facultative anaerobe that is a member of the HACEK group of fastidious Gram-negative bacteria that can rarely cause endocarditis. We report a 21 year-old Hispanic male with osteonecrosis of the mandible from a tooth infected with *A. actinomycetemcomitans* requiring antibiotics and surgical intervention.

Case Description:
A 21-year-old Hispanic male with no known past medical history presented to the emergency department with a purulent right jaw and neck abscess. Two weeks prior he began having right lower tooth pain. Over the next 10 days his pain and swelling progressed, limiting his ability to open his mouth and to eat and drink. He then noticed an enlarging mass over the right jaw and neck with purulent discharge. Intolerable pain brought him to the ED. Admission CT of the soft tissue of the neck found right mandibular angle and ramus osteomyelitis, adjacent masticator and sternocleidomastoid infectious myositis, reactive right parotiditis, and severe right cervical cellulitis. There were also small periapical abscess of the right mandibular first molar, and small pockets of localized edema in the right suprahyoid neck without organization and right upper cervical adenopathy. He was started on vancomycin and piperacillin-tazobactam. Ear nose and throat surgeon aspirated the abscess. Aspirated abscess culture grew *Aggregatibacter actinomycetemcomitans*. Antibiotics were narrowed to ceftriaxone metronidazole. ENT then performed incision and drainage of the right jaw and neck abscess and extracted two infected teeth. He was successfully discharged on post operative day one on moxifloxacin with goal of 6 weeks of therapy with close ENT follow up.

Conclusion:
Early recognition and treatment of periodontal infections is important to prevent complications such as abscess formation and osteonecrosis from osteomyelitis. We report a prototypical example of an acute progression of a simple tooth ache developing into severe osteonecrosis by a rare HACEK organism not commonly encountered requiring aggressive antibiotics and surgical management.