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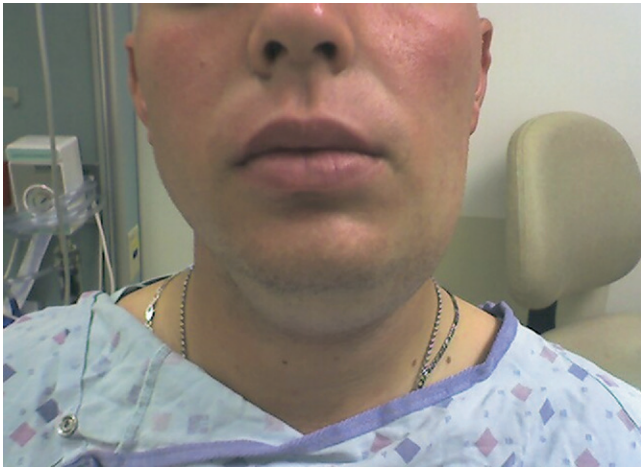
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**Figure 1.** Left submandibular swelling and erythema.



**Figure 2.** Bedside ultrasonography of left submandibular swelling.

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An 18-year-old man presented for swelling and pain in the left submandibular region, associated with fever. Physical examination demonstrated prominent swelling of the left submandibular region, with redness, warmth and tenderness to palpation (Figure 1). No intraoral swelling or protrusion of the tongue was noted. Total WBC count was increased, at 15,000 cells per cubic millimeter with 75% neutrophils. Bedside ultrasonography was performed (Figure 2). Subsequent intravenous contrasted computed tomography of the neck was obtained (Figure 3).



**Figure 3.** Intravenous contrasted computed tomography of the neck. Used with permission of Justin B. Williams, MD, San Antonio Uniformed Services Health Education Consortium Emergency Medicine Residency Program, Brooke Army Medical Center, Fort Sam Houston, TX.

*For the diagnosis and teaching points, see page 24.*

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### DIAGNOSIS:

*Acute submandibular sialadenitis with infected sialoceles.* Sialadenitis is acute inflammation of the salivary gland, predominantly infectious in origin but occasionally autoimmune in cause. The parotid gland is much more commonly affected than the submandibular salivary glands.<sup>1</sup> Frank cellulitis may be present, potentially complicated by an obstructed salivary gland, resulting in formation of a sialocoele or abscess.

Treatment of these patients may be altered by bedside ultrasonography by determining the presence or absence of a fluid collection.<sup>2</sup> If a fluid collection is present, surgical drainage is indicated. If one is absent, antibiotics with close follow-up is indicated.<sup>1</sup>

*Staphylococcus aureus* is the most commonly cultured organism in sialadenitis, but other intraoral aerobes, anaerobes, and viruses have been implicated.<sup>3</sup> Patients with acute sialadenitis may appear toxic, and the condition may be life threatening, with abscess formation or infectious involvement of the deep spaces of the neck.

Our patient underwent surgical drainage and resection of the submandibular salivary gland, complicated by subsequent development of a submandibular phlegmon. Methicillin-resistant *staphylococcus aureus* was the causative agent. The patient recovered completely after administration of intravenous antibiotics.

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