Bedside Ultrasound for the Diagnosis of Peritonsillar Abscess

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Video Link: https://youtu.be/eiysZe5es

https://youtu.be/l2j4q5Wu9c

ABSTRACT:

History of present illness: A 34-year-old male presented to the Emergency Department with fever, sore throat, and difficulty swallowing. On exam, the patient had trismus, a deviated uvula, and swelling of his left peritonsillar space. An intraoral point of care ultrasound (POCUS) was performed, which revealed a fluid collection in the patient’s left peritonsillar space. The patient was diagnosed with a peritonsillar abscess (PTA) and needle aspiration was performed under direct ultrasound guidance. The patient tolerated the procedure well and was sent home with a course of antibiotics.

Significant findings: The first video is an intraoral ultrasound using the high frequency endocavitary probe.
demonstrating an anechoic fluid collection adjacent to the patient’s enlarged left tonsil. The second video shows real-time ultrasound-guided successful drainage of the PTA.

**Discussion:** Peritonsillar abscesses are the most common deep space infection of the head and neck\(^1\), most commonly affecting children and young adults.\(^2\) The ability of physicians to accurately differentiate PTA from peritonsillar cellulitis (PTC) by physical exam alone is limited. Traditionally, PTA has been treated using landmark-based needle aspiration.\(^3\) If unsuccessful, computed tomography (CT) imaging and otolaryngology (ENT) consultation is usually required.\(^3\) Although diagnosis of PTA using intraoral ultrasound has a sensitivity and specificity of between 89%-95% and 79%-100% respectively, it is still underutilized in comparison to these traditional methods.\(^4\) Studies have shown the use of ultrasound for diagnosis and treatment of PTA leads to significantly better outcomes and higher success rates of drainage (when compared to landmark-based needle aspiration), less need for CT imaging, and less need for ENT consultation.\(^3\) Utilizing intraoral point-of-care ultrasound is an efficient, safe, and cost-effective way of diagnosing and treating PTA.

**Topics:** Peritonsillar abscess, intraoral ultrasound, head and neck, point of care ultrasound, ENT.

**References:**