Emergency Evaluation and Management of the Sore Throat

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KEYWORDS

• Streptococcal pharyngitis • Uvulitis • Infectious mononucleosis • Epiglottitis
• Retropharyngeal abscess • Peritonsillar abscess

KEY POINTS

- The chief complaint of sore throat includes broad differential, including streptococcal pharyngitis, tonsillitis and peritonsillar abscess, retropharyngeal abscess, epiglottitis, uvulitis, and infectious mononucleosis.
- Tonsillitis can be difficult to differentiate from peritonsillar abscess. Ultrasound can help diagnose and direct treatment in these situations.
- In the post vaccine era, epiglottitis is now a disease of adults with insidious onset and more subtle symptoms requiring early aggressive airway management in people presenting with stridor, signs of distress, and systemic disease.
- Uvulitis has infectious and noninfectious causes, which usually respond to medical treatment but occasionally can cause deadly airway obstruction.
- The diagnostic dilemma of streptococcal pharyngitis and mononucleosis continues, and many recommend the aid of laboratory testing in diagnosis and differentiation from other viral causes of pharyngitis before treatment.

INTRODUCTION

The chief complaint of "sore throat" can be caused by conditions ranging from common viral pharyngitis to a deadly diagnosis, such as epiglottitis or severe airway obstruction. A patient with a sore throat should not be taken lightly and deserves your immediate attention, evaluation, and emergent treatment. This article reviews the evaluation, diagnosis, and management of common causes of sore throat: peritonsillar abscess, retropharyngeal abscess, epiglottitis, uvulitis, infectious mononucleosis, and streptococcal pharyngitis.

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PERITONSILLAR ABSCESS

Peritonsillar abscess (PTA) is a very common problem, representing 30% of all head and neck abscesses. It is believed to be a complication or progression of another oropharyngeal infection, such as tonsillitis. It is a collection of pus behind the tonsil in the superior arch of the soft palate between the tonsil and the constrictor muscle, previously referred to as "quinsy." It causes significant pain and discomfort. When treated appropriately, with drainage, antibiotics, and pain management, most patients feel significantly better before discharge from the emergency department (ED) and completely recover, with a very low recurrence rate.

Symptoms

The classic presenting symptoms of PTA are as follows:

- Fever
- Malaise
- Dysphagia
- Sore throat
- Drooling
- Muffled or "hot potato" voice
- Referred ear pain

Clinical Examination Findings

Patients typically have inferior medial deviation of the infected tonsil, with uvular deviation away from the affected side. The pharyngeal arch is usually inflamed, erythematous, and enlarged. They may also have lymphadenopathy on the affected side.[1] Trismus, drooling, foul-smelling breath, and a muffled voice are often noted. Peritonsillar abscesses are usually unilateral; however, bilateral occurrences have been described in case reports.[2–4] In bilateral presentations, patients may not have the classic uvular deviation or unilateral prominence, making the clinical diagnosis more difficult and therefore requiring a high degree of suspicion for accurate diagnosis.

Bacterial Causes

The most common bacterial cause is Group A streptococci, usually a complication of preexisting tonsillitis/pharyngitis.[5] Many infections are found to be polymicrobial. Other common causative bacteria are *Streptococcus pyogenes*, *Staphylococcus aureus*, and *Haemophilus influenzae* and anaerobic bacteria, such as *Peptostreptococcus*, *Fusobacterium*, and pigmented *Prevotella*.[1]

Diagnostic Tools

Diagnosis based on the clinical examination findings alone has been shown to have a sensitivity of only 78% and a specificity of 50%. It can be very difficult to differentiate PTA from other causes of sore throat, such as infectious mononucleosis, tonsillar cellulitis, retropharyngeal abscess, and retromolar abscess. In the past, the diagnosis was confirmed with positive aspiration of pus on needle aspiration. More recently, however, imaging, such as ultrasound or computerized tomography (CT), is being used more often. When the physical examination is combined with ultrasound, the sensitivity increases to 89% and the specificity to 100%. CT has been shown to have a sensitivity of 100% and a specificity of 75% in diagnosing PTA.[6] Ultrasound has several advantages over CT: it is easily accessible, has a low cost, and exposes the patient to no radiation, and can be used to guide drainage. The advantage of CT is