

Concurrent infectious uvulitis and peritonsillar abscess in an adult patient

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Abstract

Presentation

A 35-year-old male presented to the Emergency Department with a sore throat, painful swallowing, and concern over the size of his uvula. On examination, a significantly swollen, erythematous uvula was noted, along with a left-sided peritonsillar abscess (PTA).

Diagnosis

Laboratory investigations revealed leucocytosis with neutrophilia and an elevated C-reactive protein of 59 mg/L. The patient was diagnosed with concurrent infectious uvulitis and peritonsillar abscess.

Treatment

The patient received intravenous dexamethasone, analgesia, co-amoxiclav, and nebulized adrenaline. The otolaryngology team performed needle aspiration of the PTA due to the risk of airway compromise. His symptoms showed significant improvement overnight, and he was discharged the following day with oral co-amoxiclav.

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Introduction

Uvulitis is defined as inflammation and edema of the uvula, often occurring alongside inflammation of adjacent oropharyngeal structures¹. It is typically a rare, benign, and self-limiting condition in adults, although it can lead to life-threatening airway obstruction in rare cases^{1,2}. While non-infectious causes of uvulitis in adults include allergies, hereditary angioedema, medications, trauma (intubation, endoscopy, and aggressive oral suctioning), chemical (alcohol) or thermal injuries (smoking), infectious causes are more common in children and adolescents, often associated with upper respiratory infections¹⁻³.

Gastroesophageal reflux disease, obesity, obstructive sleep apnoea, and snoring may also contribute to uvulitis in adults⁴⁻⁶.

Case report

A 35-year-old Irish male presented to the Emergency Department with a five-day history of sore throat and painful swallowing. He reported significant anxiety after noticing a markedly enlarged uvula. His wife and daughter had recently experienced flu-like symptoms. The patient denied any known allergies, recent medication use, recent surgery, smoking, or drug use, and his only medical history was hypothyroidism managed with levothyroxine following a thyroidectomy.

On examination, his temperature was 37.8°C and his heart rate was 119 beats per minute, with normal blood pressure and oxygen saturation. Oropharyngeal inspection revealed a grossly swollen, erythematous uvula approximately 2x2 cm in size, alongside a left-sided peritonsillar abscess (Figure 1). No signs of respiratory distress, stridor, drooling, trismus, or neck stiffness were present. Blood tests revealed a white cell count of $12.3 \times 10^9/L$ and a C-reactive protein of 59 mg/L. He was diagnosed with concurrent infectious uvulitis and peritonsillar abscess (PTA).

Treatment included intravenous fluids, dexamethasone, paracetamol, co-amoxiclav, and nebulized adrenaline. The patient was then referred to the otolaryngology team who had performed needle aspiration, draining 4 mls of purulent fluid from the PTA under local anesthesia. The patient was admitted overnight for observation due to the risk of airway compromise. By the following morning, his symptoms had markedly improved, and he was discharged with oral co-amoxiclav and analgesia, along with safety-netting advice. He made a full recovery within one week and did not require further otolaryngology review.



Figure 1. Extremely enlarged erythematous uvula with post-drainage left-sided PTA

Discussion

Uvulitis is a rare cause of sore throat in adults². Infectious uvulitis, particularly in adults, is less common compared to children^{4,5}. The predominant organisms responsible for uvulitis include *Streptococcus pyogenes*, *Haemophilus influenzae*, and *Streptococcus pneumoniae*, making penicillin the antibiotic of choice^{5,7}.

While rare, uvulitis or PTA can cause life-threatening airway obstruction, particularly when they occur concurrently. The mass effect of both inflamed structures heightens the risk of airway compromise^{5,6,8}. Close monitoring for signs of airway obstruction is essential in such cases. Complications of these infections, such as deep neck space infections, epiglottitis, rheumatic fever, or post-streptococcal glomerulonephritis, must be ruled out^{1,9}.

The diagnosis of simultaneous uvulitis and peritonsillar abscess (PTA) is primarily clinical. However, imaging techniques such as ultrasound, soft tissue neck X-ray, or CT scans can be useful in confirming the diagnosis or excluding the presence of deeper infections. Imaging like CT scans is advisable if the patient can comfortably lie supine without any airway difficulties⁸.

Although there are no standardized guidelines for managing uvulitis, various expert recommendations outline a structured treatment approach². This includes immediate airway assessment by senior clinicians, ensuring the patient is seated upright in the ED or during ambulance transfer, obtaining a detailed medical history, conducting a thorough physical examination, ordering laboratory or radiology tests to aid in the diagnosis, and enhancing pharmacological and procedural interventions to prevent complications^{3,4}.

For uvulitis, corticosteroids help reduce inflammation and pain, while nebulized adrenaline alleviates swelling to lower the risk of severe airway obstruction and improve patient outcome^{3,4}. Additionally, it is advisable to administer empirical antibiotics targeting common pathogens, even if there are no physical or laboratory signs of infection². On the other hand, treating PTA includes administering broad-spectrum antibiotics along with needle aspiration, incision and drainage, or tonsillectomy¹⁰.

To our knowledge, only one other case of concurrent infectious uvulitis and PTA in an adult patient has been reported.⁸

This case highlights the importance of early recognition and treatment of concurrent uvulitis and PTA, conditions that pose a risk of life-threatening airway obstruction. Timely intervention, ENT specialist consultation, and vigilant monitoring for airway compromise are crucial in preventing severe complications and improving patient outcomes.

Declarations of Conflicts of Interest:

None declared.

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