

Quincke's Disease of the Uvula: An Emergency Condition

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ABSTRACT

Background: Quincke's disease, a secluded form of angioneurotic edema concerning the uvula that is induced by numerous factors such as foods, drugs, inhalants and infection. Although it has important oral manifestations, it is very rarely described in the dental literature. The hasty onset and development of this condition causes the risk of respiratory obstruction which may result in a serious emergency situation. Signs and symptoms include a nonerythematous uvular enlargement, gagging, fullness in the throat, and signs of compromised airway. We present a case report of an isolated uvulitis, an acute emergency condition, requires immediate attention.

Keywords: Emergency, Quincke's Disease, Uvula, Uvulitis; Uvulectomy.

INTRODUCTION

Uvula or little grape is a tongue shaped flashy elongated tissue at the tip of the soft palate. Acute isolated uvular inflammatory swelling (uvulitis), most likely a focal manifestation of nonhereditary angioneurotic edema, has been termed "Quincke's disease" after the renowned German clinician of the late nineteenth century Heinrich Quincke. ¹ The most common etiologies of uvular edema are allergic reaction or hereditary angioedema. Infection is also a known cause accompanies pharyngitis or epiglottitis.² The reaction is generally painless; though, its sudden onset and rapid progression make it a potentially serious medical emergency because of the risk of upper airway obstruction and respiratory distress. It is relatively a rare cause of upper airway obstruction or distress. Very few cases of isolated uvulitis or Quincke's disease have been reported in the literature so far. We present a case report of an acute cellulitis and edema of the uvula with severe

upper airway distress, which was managed by an emergency uvulectomy under local anesthesia.

CASE HISTORY

A 22 year old teenage boy reported in the Department of the Oral and Maxillofacial Surgery, Maharaja Ganga Singh Dental College and Research centre with the chief complaint of difficulty in swallowing, gagging, fullness & discomfort in throat & breathlessness since half an hour. Past medical and family history was unrevealing. The patient started to feel discomfort just after eating a burger. After few minutes of eating, he felt choking of throat. On examination, patient was restless, apprehensive, nervous with excessive sweating possibly because of respiratory distress. (Fig-1). Intraoral examination reveals well demarcated congested, soft, edematous, pear shaped swelling of the uvula, approximately 2*1 cm in size, with no discharge or exudate. The overlying mucosa was pale, shiny and nonerythematous. (Fig- 2) The

Received: Feb. 19, 2016: Accepted: Apr. 1, 2016

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Fig 1: Patient frontal profile.



Fig 2: Uvular enlargement.



Fig 3: Administration of local anesthesia.



Fig 4: Partial uvulectomy.



Fig 5: Immediate postoperative.



Fig 6: Excised lesion.

tonsils, peritonsillar region, soft palate, and tongue were normal. Considering it as an emergency condition, to relieve the respiratory distress, emergency partial uvulectomy was planned under local anesthesia. Approximately 1 ml of Lignocaine hydrochloride with adrenaline (1:80000) was administered in the swelling. (Fig-3) After achieving desired anesthesia, incision at the base of swelling was given leaving normal sized uvula at the rear (Fig-4). After surgical excision of the lesion, patient got immediate relief from respiratory distress (Fig-5). The excised mass was sent for histopathological examination (Fig-6). Patient was administered the following medications considering the condition as an allergic one. Injection Chlorpheniramine (Avil®) 40 mg and Injection Dexamethosone 8 mg. Antibiotic and Analgesic injections were administered too for 3 days. He was under observation with continuous monitoring of vitals. The patient regained the normal functions of swallowing and speech shortly after the operation and he was discharged after 3 days. Histopathological examination reveals inflammatory tissue.

DISCUSSION

Quincke's disease refers specifically to localized nonhereditary angioneurotic edema of the uvula. Angioneurotic edema refers to acute edematous swelling of the deeper layers of the skin and mucous membranes related to increased vascular permeability. Substantial amounts of fluid escape into tissues from blood vessels, results in sudden large swelling. The overlying skin or mucosa is usually normal in color and pain is unusual. Swelling may persist from a few hours to 3 days. The most common cause of angioneurotic edema is IgE-mediated type- I hypersensitivity reaction without complement activation." Histamine is a mediator of anaphylaxis that stimulates vascular permeability and leads to edema. These types of angioneurotic edema have several promoting factors, the most common of which are foods, drugs, and inhalants which may be an etiological factor in our case too. This type of response has also been documented in association with ingestion of nuts, shellfish, and wheat.⁴ Other considerations, such as inhalation injury, postendotracheal intubation injury, adverse medication effect, and marijuana use, were not applicable in our case. In addition to various causes, uvular swelling may also occur in

response to other processes that affect the oropharynx. It is important to distinguish Quincke's disease from other inflammatory conditions of the uvula, such as infectious disorders, neoplasms and chemical injuries.⁵

Clinical features of Quincke's disease includes a swelling in the throat, gagging sensation due to constant movement of enlarged uvula, difficulty in swallowing, alteration of voice and most importantly dyspnea which may be due to the swollen distended uvula or concomitant laryngeal edema. This is concomitant with our case too. Fever and pain was also reported in the literature which may be due to infection.¹ Karl Li et al⁶ described 3 cases of isolated uvulitis in which H. influenza infection was a causative factor which were treated conservatively with parenteral antibiotics. Lathadevi H.T et al³ in their case series, reported 5 cases of isolated uvulitis. All cases were also treated with antibiotics. It is recommended that underlying pharyngitis and epiglottitis needs to be diagnosed for definite treatment. However allergy induced uvulitis has been treated with medications such as antihistamines, epinephrine, or glucocorticoids if specific allergen has been found.⁷⁻¹⁰ E Alcoceba et al¹¹ in their study, treated the patients of uvular edema with medicines and he also recommended that excision should be considered in patients with recurring episodes, patients with an acute episode resistant to medical treatment, and patients whose symptoms progressed rapidly. In our case, rapidly enlarging swelling and respiratory distress was the prime concern for patient to seek the treatment, emergency partial uvulectomy was planned under local anesthesia to give instant relief. Recently, Uvulectomy with laser has been well renowned as a part of uvulopalatopharyngoplasty.¹²

CONCLUSION

Uvular edema is a serious clinical problem which causes upper respiratory distress, is potentially easy to diagnose and treat, which may occur due to numerous causes. The underlying cause needs to be identified for definite treatment and better prognosis without recurrence. Although medical treatment gives good results, when dyspnea is a major concern, surgical treatment i.e. emergency uvulectomy under local anesthesia should be considered.

CONFLICT OF INTEREST

No potential conflict of interest relevant to this article was reported.

REFERENCES

1. Mattingly, Gretd, Brad Rodu, and Rocklin Alling. "Quincke's disease: nonhereditary angioneurotic edema of the uvula." *Oral surgery, oral medicine, oral pathology*. 1993;75(3):292-295.
2. Mills, Lisa D., Karen May, and Frank Mihlon. "Peritonsillar abscess with uvular hydrops." *Western Journal of Emergency Medicine*. 2010;11(1):83-85.
3. Lathadevi, H. T., et al. "Isolated uvulitis: an uncommon but not a rare clinical entity." *Indian Journal of Otolaryngology and Head and Neck Surgery*. 2005; 57(2):139-140.
4. Armentia A, Martin-Santos JM, Blanc0 M, Carretero L, Puyo M, Barber D. Exercise induced anaphylactic reaction to grain fours. *Ann Allergy* 1990;65:149-51
5. Goldberg R, Lawton R, Newton E, Line WS. Evaluation and management of acute uvular edema. *Annals of emergency medicine*. 1993 Feb 28;22(2):251-5.
6. Li, Karl I., et al. "Isolated uvulitis due to *Haemophilus influenzae* type b." *Pediatrics*. 1984; 74(6):1054-1057.
7. Mallat, AnnMarie, Joseph Roberson, and John G. Brock-Utne. "Preoperative marijuana inhalation—an airway concern." *Canadian journal of anaesthesia*. 1996;43(7):691-693.
8. Cevik Y, Vural S, Kavalci C. Isolated uvular angioedema: Quincke's disease. *International journal of emergency medicine*. 2010 Dec 1;3(4):493-4.
9. Evans TC, Roberge RJ. Quincke's disease of the uvula. *The American journal of emergency medicine*. 1987 May 31;5(3):211-6.
10. Kestler A, Keyes L. Uvular angioedema (Quincke's disease). *New England Journal of Medicine*. 2003 Aug 28;349(9):867
11. Alcoceba E, Gonzalez M, Gaig P, Figuerola E, Auguet T, Olona M. Edema of the uvula: etiology, risk factors, diagnosis, and treatment. *J Investig Allergol Clin Immunol*. 2010 Jan 1;20(1):80-3.
12. Cheng, Leo HH, and Deane Halfpenny. "Treatment of an enlarged uvula." *British Journal of Oral and Maxillofacial Surgery*. 2008; 46(6):490-491.