

## Partial Epiglottic Edema Post Fish Bone Ingestion

<sup>1</sup>M Irfan\*, <sup>1</sup>AY Ali & <sup>2</sup>Y Rohaizan

<sup>1</sup>Department of Otorhinolaryngology-Head & Neck Surgery, School of Medical Sciences, Universiti Sains Malaysia Health Campus, 16150 Kota Bharu, Kelantan, Malaysia

<sup>2</sup>Department of Radiology, School of Medical Sciences, Universiti Sains Malaysia Health Campus, 16150 Kota Bharu, Kelantan, Malaysia

### ABSTRACT

A fish bone (foreign body) in the throat is a common presentation in an otolaryngology practice. Commonly the fish bone can be visualized and removed in a clinic setting. More distal foreign body impaction such as at the cricopharyngeus level will need direct laryngoscopy and removal under general anesthesia. It is not uncommon to have patient presented with residual symptom of post foreign body ingestion. Findings such as traumatized mucosa and embedded bone with slough on the mucosal surface are commonly encountered. We report a case of post foreign body ingestion presented with odynophagia and laryngoscopy showed a partially swollen epiglottis. The symptom recovered with conservative management.

**Keywords:** Epiglottis, hematoma, foreign body, pharynx, fish bone

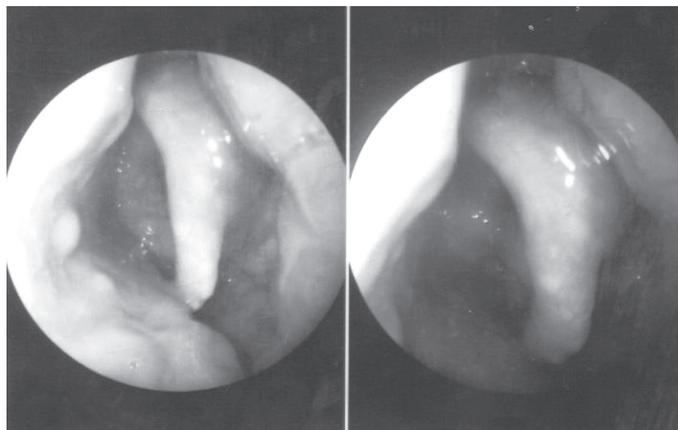
### INTRODUCTION

Epiglottitis is an inflammation of the epiglottis which is usually acute in nature and almost always secondary to infection. It is rarely due to trauma caused by a foreign body. Foreign body in the throat especially fish bone tend to be impacted in the soft tissues such as tongue, tonsils and cricopharyngeus muscle, rather than on the cartilaginous structure such as the epiglottis. Direct trauma to the epiglottis, though have been reported are usually due to the iatrogenic intubation or airway surgical procedures. We report a case of partial epiglottic edema post foreign body ingestion

### CASE SUMMARY

A 52-year-old Malay gentleman with no known medical illness presented with history of pain during swallowing. He admitted to having a foreign body sensation in the throat, and he had a history of fish bone accidental ingestion 3 hours prior to admission. There was no associated dysphagia and breathing difficulty.

Oral examination revealed normal findings. Flexible nasopharyngolaryngoscopy performed exhibited left sided swollen epiglottis. The vallecula space on the left medial to the midline was obliterated, with the swollen epiglottis touching the base of tongue. There was no foreign body seen. A lateral neck radiograph obtained, showed the appearance of thumb-sign shadow of epiglottis, with suspicious small fragment of opacity at the superior part to the cricoid cartilage.



**Figure 1.** Endoscopic view of the epiglottis showed the lingual surface was half-swollen on the left side

\*Corresponding author: [irfan@kb.usm.my](mailto:irfan@kb.usm.my)



**Figure 2.** Lateral neck radiograph showed swollen epiglottis with obliteration of normal vallecula space with a possible small piece of curved fish bone embedded in the soft tissue at the C5 level

He was admitted for close observation of the airway status and started on intravenous antibiotics, dexamethasone and was prepared for direct laryngoscopy and esophagoscopy on the next day under general anesthesia. However during review on the following day, the patient claimed that the symptom had already subsided. There was no pain on swallowing saliva. There was no foreign body sensation either. He was very comfortable. A repeat laryngoscopy revealed only minimal bruises on lingual surface of epiglottis and complete resolution of the edema.

The patient was subsequently discharged and asked to continue with the oral antibiotics and then for the follow-up visit with clinic for review. However, the patient defaulted the follow-up.

## DISCUSSION

Epiglottitis is an uncommon site for fish bone impaction among the oral cavity or oropharyngeal structures, owing to its anatomy built up. The epiglottis is made up of cartilage and only covered by a layer of mucosa on both its lingual and pharyngeal surfaces. However, due to the loose and vascular mucosa around the epiglottic area, any inflammation, irritation or allergic reaction may rapidly cause oedema and vascular engorgement.<sup>[1]</sup>

The epiglottis is one of the main structure in the oropharynx and its abnormality especially increment in size will accommodate a significant portion of the oropharyngeal space. Thus, any patient with suspected enlargement of epiglottis, whether due to hematoma or edema such as in acute trauma or infection should be admitted and treated as life-threatening condition as it may result in complete upper airway obstruction and sudden death.<sup>[2]</sup>

Epiglottic swelling which is related to acute epiglottitis can be appreciated in a plain lateral neck radiograph, showing a classical 'thumb sign' opacity of the epiglottis. It is commonly employed as a screening imaging when epiglottitis is suspected. Besides that, bedside ultrasonography at an Emergency Department could be a valuable tool to detect pathological enlargement of the epiglottis. Ultrasound may be used in unstable patients for diagnosing epiglottitis because it is cheap, rapid, non-invasive and does not aggravate the patient's symptoms.<sup>[3]</sup> The more reliable diagnostic strategy is to perform direct laryngoscopy or flexible nasopharyngolaryngoscopy as it can clearly show the suspected pathologic epiglottis.<sup>[1]</sup>

It is not uncommon for a patient to have symptoms of acute epiglottitis with suspected ingestion of a foreign body or the sensation of a 'lump' in the throat although later no foreign body is found.<sup>[1]</sup> This can be due to the fact that most patients were worried, as past history of foreign body ingestion had contributed directly to the symptom. Without knowing the more sinister condition and complication of epiglottitis, the presentation sometimes may be delayed. It can be more dangerous if the patient attempts to remove the foreign body on their own as there is a reported case of finger sweep to remove pharyngeal foreign body which ended up with epiglottic edema.<sup>[4]</sup>

In view of the impending airway obstruction, the patient should be admitted and closely observed. However if observation facilities and personnel skilled in airway management are available, routine prophylactic intubation of adult patients with acute epiglottitis is unnecessary. It is because such procedure, performed as an elective procedure,

will end up with longer hospital stay and greater morbidity due to other causes.<sup>[5]</sup> If the signs of impending airway obstruction is pronounced, the patient can be either intubated by endotracheal route, or tracheostomized.

In conclusion, presentation of odynophagia with positive history of foreign body should alert the treating physician to the possibility of epiglottic injury. Prompt diagnosis can be achieved from adequate history, lateral neck radiograph and laryngoscopic examination. Throughout the course of the investigation, the patient should be closely observed in view of sudden airway obstruction.

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