A rare site of fish bone impaction: A case report

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ABSTRACT
Fish bone impaction is a fairly common complaint in the ENT-outpatient and ER. Most fish bone impactions occur in the tonsil, tongue base, vallecula and cervical oesophagus. Fish bone impactions in the larynx are rare and impactions in the epiglottis have not been reported. The case presentation demonstrates a very rare case of fish bone in the epiglottis.

Keywords: fish bone, foreign body, oropharynx, epiglottis

INTRODUCTION
Accidental impaction of fish bones occurs quite frequently1. Eating carelessly and not chewing the food adequately may result in fish bone ingestion. Some bones are swallowed, some get impacted in the pharynx, laryngopharynx and the oesophagus. Common sites of impaction include the tonsils, tongue base and vallecula2. Large bones tend to impact in the pyriform sinus and cervical oesophagus3. Laryngeal impactions of fish bones have been reported though rare4. Fish bones in the epiglottis have not been reported.

CASE REPORT
A 30 year old lady of Asian origin presented with pain and difficulty in swallowing on the right side of the throat after accidentally ingesting a fish bone. She tried to remove it with her index finger but was unsuccessful.

Careful examination of the mouth and pharynx did not reveal a fish bone, mucosal abrasions or submucosal hematomas. Indirect laryngoscopy [mirror examination] showed mild congestion of the right border of the epiglottis with mild swelling. Pooling of saliva was observed in the vallecula. The rest of the larynx and tongue base was normal.

The patients symptoms and the clinical findings warranted a closer examination so the patient was subjected to a laryngeal telescopic using a 70° telescope. Telescopic showed a magnified image of the larynx with oedema and congestion of the right lateral border of the epiglottis, pooling of saliva in the vallecula and what appeared to be a small epithelial laceration of the tip of the epiglottis to the right of the midline. This area was probed with an artery forceps and the apparent mucosal laceration turned out to be the tip of a deeply impacted 1.5 cm long fish bone, which was extracted.

Figure 1: Telescopic picture of the larynx showing pooling of saliva in the vallecula, redness and swelling of the right border of the epiglottis, tip of the fish bone projecting at the tip of the epiglottis.
the oropharyngeal surface. There are keratinised squamous epithelium on structure lined by tightly adherent non boluses. Being dislodged by subsequent food boluses. Many of these impactions are temporary, to active pharyngeal contractions at that phase of deglutition. A fish bone situated bolus during swallowing, the position and include direction of the fish bone in the bones that actually get impacted is about 1:5. The factors behind their impactions are also seen. Large bones impact in the pyriform sinus, vallecula and cervical oesophagus. They are also seen across the vallecula and can cause respiratory obstruction. Fish bones impacted in the larynx can also result in stridor. Small fish bones are found in the crypts of the faucial and lingual tonsils. Impacted fish bones have been known to penetrate into the neck and migrate causing deep neck abscess, even entering the facial artery. The proportion of swallowed small fish bones that actually get impacted is about 1:5; the factors behind their impactions include direction of the fish bone in the bolus during swallowing, the position and phase of deglutition. A fish bone situated in the periphery of a bolus and subjected to active pharyngeal contractions at that moment are more likely to get impacted. Many of these impactions are temporary, being dislodged by subsequent food boluses.

The epiglottis is a fibrocartilaginous structure lined by tightly adherent non keratinised squamous epithelium on the oropharyngeal surface. There are no natural orifices in the structure and is flexible, bending and moving under the food bolus during deglutition. The structure and nature of the epiglottis do not permit impactions of foreign bodies on it. In the present case the fish bone penetrated the intact mucosa of the epiglottis and entered the epiglottis between the cartilage and the mucosa. This was probably caused by the patient pushing in the bone with her finger in her efforts to remove the fish bone. The small fish bone can be quite difficult to detect due to its size and often translucent colour. Plain radiographs are not helpful in their detection. Staining of the bone with dyes has been advocated by some. 64 slice MDCT scans can be used where the foreign body cannot be visualised or is within the tissues.

For successful location and removal of fish bones in the upper digestive tract a high degree of suspicion combined with persistent meticulous examination is required. Use of a laryngeal telescope provides magnification which helps in identifying small, cryptic fish bones and should be used whenever mirror examination is inadequate.

REFERENCES
