CLINICAL PRACTICE GUIDELINE: Emergency Department

Foreign Body in the Throat

Disclaimer: This Clinical Practice Guideline ('CPG') was written for use in The Royal Victorian Eye and Ear Hospital Emergency Department. It should be used under the guidance of an Ophthalmology or ENT registrar. If clinical advice is required, please contact the Eye and Ear Admitting Officer for assistance: EYE: +61 3 9929 8033; ENT: +61 3 9929 8032. Links to internal Eye and Ear documents cannot be accessed from the website CPG.

Description:

Ingestion of foreign body (FB) into the pharynx, larynx or oesophagus. In adults this is typically fish/chicken bones and dental fillings. In children consider nuts, seeds, button batteries, coins, small toys, pebbles, stickers.

Red Flags:

- Airway involvement and appropriate escalation if the following are present:
  - Stridor: leave patient in position and call for airway assistance
  - Coughing/gagging, when the object was first ingested
  - Dysphonia/hoarseness
  - Wheezing
  - Shortness of breath
- Button battery: very urgent removal ASAP due to risk of perforation-Time critical Refer to RCH immediately
- Neck swelling, fever: consider abscess or infective changes
- Subcutaneous emphysema: consider migration or penetration/erosion of the FB
- Pneumonia: consider inhalation of the FB into the lower airway

How to Assess:

History:

- Clear history of events
  - Object ingested: food bolus vs foreign body
  - Time of ingestion
  - In children, it is important to elicit whether there is a witnessed ingestion or choking episode (may present with cough or voice changes which may be mistaken for other pathologies, e.g. croup)
- Odynophagia: sharp pain, midline vs lateral, location and level
- Scratching sensation in throat
- Dysphagia
- Dysphonia
- Cough

Examination:

- Oral cavity: inspect and palpate if there is a history of eating fish, including tonsil and tongue base. Fish bones are most commonly found in the tonsil and the tongue base
- Neck: palpate for any crepitus from surgical emphysema, focal tenderness or swelling
- Chest: surgical emphysema, wheeze. See red flags

Investigations:

- Flexible nasal endoscopy (FNE): consider if FB not seen in the oral cavity.
- X-ray Soft Tissue Neck (lateral projection) may help for a radio-opaque FB, if not seen on examination and there is a high clinical suspicion. Fish bones are often not radio-opaque, as well as Aluminium can ring pull tabs.
- Consider CT Neck (soft tissue) if clinically indicated after discussion with ENT

Acute Management: location dependent

- Airway Risk: call Code Blue. Patient may require emergency transfer to St. Vincent's using lights and sirens ambulance
- Larynx/Pharynx/Tongue Base:
    - FB seen on examination: 10% lignocaine spray (1 spray = 10mg. Max dose: 200 mg adults, 1.5 mg/kg children 3–12 years), tongue depressor, removal under direct vision with Tilley forceps or Magill forceps. Utilise an assistant to hold the endoscope
    - FB not seen on examination or FNE: may require general anaesthetic and surgical removal
- Below the Larynx: removal is usually with a rigid bronchoscope, but may require Respiratory referral and flexible bronchoscopy.
- Oesophagus: will require oesophagoscopy or gastroscopy. Consultant referral
- If no FB is seen and no red flags present:
    - Advise soft diet for 48 hours, and if symptoms persist to represent to ED within several days
    - Consider diagnosis of reflux: commence on Proton pump inhibitor (PPI) and GP follow up

Discharge instructions and Follow up:

- If FB is successfully removed, may not require follow up
- Advise to return if any red flags develop and symptoms worsen
- With suspected fish bone, return within 2 days if sharp sensation in throat remains

Evidence Table

Author(s)	Title	Source	Level of Evidence (I – VII)
Savage J, Brookes, N, Lloyd S, Mackay I.	Fish bones in the vallecula and tongue base: Removal with the rigid nasal endoscope.	J Laryngology Otology 2002;116(10):842-43	VII
Heim SW, Maughan KL	Foreign bodies in the ear, nose, and throat.	J American Family Physician 2007;76(8):1185-89.	V
Jarugula R, Dorofaeff T.	Oesophageal button battery injuries: Think again.	Emergency Med Australasia. 2001;23(2):220-23.	VI
Robinson PJ.	Laryngeal foreign bodies in children: first stop before the right main bronchus.	J Paediatric Child Health. 2003;39:477-9.	VI
Kumar M, Joseph G, Kumar S, Clayton M.	Fish bone as a foreign body.	J Laryngology Otology 2003;117:568-9.	III
Fung BM, Sweetser S, Wong Kee Song LM, Tabibian JH.	Foreign object ingestion and esophageal food impaction: An update and review on endoscopic management.	World J Gastrointestinal Endoscopy 11(3):174-192, 2019	V

The Hierarchy of Evidence

The Hierarchy of evidence is based on summaries from the National Health and Medical Research Council (2009), the Oxford Centre for Evidence-based Medicine Levels of Evidence (2011) and Melynk and Fineout-Overholt (2011).

I) Evidence obtained from a systematic review of all relevant randomised control trials.

II) Evidence obtained from at least one well designed randomised control trial.

III) Evidence obtained from well-designed controlled trials without randomisation.

IV) Evidence obtained from well-designed cohort studies, case control studies, interrupted time series with a control group, historically controlled studies, interrupted time series without a control group or with case series.

V) Evidence obtained from systematic reviews of descriptive and qualitative studies.

VI) Evidence obtained from single descriptive and qualitative studies.

VII) Expert opinion from clinician, authorities and/or reports of expert committees or based on physiology.

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