Swallowed Foreign Body

INTRODUCTION

Swallowed foreign bodies can be divided into five distinct groups:

1. Small blunt objects
2. Large blunt objects
3. Potentially poisonous objects
4. Sharp objects
5. Animal bones

History

A note should be made of:

- What time the object was swallowed
- The nature of the object
- Whether the patient is still able to swallow
- Any symptoms obstruction
- Any pain

NOTE:
Always consider the possibility of aspiration. Ask about choking and breathlessness

Examination

The patient should be asked to point to the level that they feel the object since there is a significant chance that it may be lodged at this level. A routine chest and abdominal examination should be performed.
**SMALL BLUNT OBJECTS**

- The vast majority of small blunt objects will pass through the gastrointestinal system with no adverse effect.
- However occasionally the object may lodge in the oesophagus without producing symptoms and they in some instances cause erosion of the oesophageal mucosa.
- Once the object has entered the stomach or intestine the object will cause no harm.
- The priority is therefore to demonstrate by investigation that the object is not lodged in the oesophagus.

**RADIO-OPAQUE SMALL BLUNT OBJECTS**

A classic example of this being a swallowed coin.

**INVESTIGATION**

A chest X-ray should be requested, to include the neck in children. Abdominal X-ray is not indicated.

**MANAGEMENT**

**Children:**

- If the object is seen to be in the stomach or below the parents can be reassured that the object will pass uneventfully in the next few days.
- If the object is seen to be lodged in the oesophagus the child should be referred to the ENT SHO on duty.

**Adults:**

- If the chest X-ray fails to demonstrate an object it should be followed by a lateral chest X-ray to include the neck, as the dense thoracic vertebral bodies coupled with the heart shadow can prevent some small radio-opaque foreign bodies being seen.
- If the object is demonstrated in the stomach or below the patient can be reassured and discharged.
- If the object is seen to be lodged in the oesophagus the patient should be referred to the ENT SHO on duty.

**RADIO-LUCENT SMALL BLUNT OBJECTS**

A good example of this would be the top of a Smartie tube.

**MANAGEMENT**

- If the patient is symptomatic, can point to the level where he/she feels the object is stuck, or is unable to swallow, the patient should be referred to the ENT SHO on duty.
- If the patient is asymptomatic they can be reassured and discharged with the advice to return to the department immediately if they develop any symptoms.
2 LARGE BLUNT OBJECTS

- The classic example of this is swallowed dentures (note that not all dentures are radio-opaque)
- Due to their size large objects are more likely to lodge in the gastrointestinal system and are more likely to cause erosion of the mucosa
- The priority therefore is to try and establish exactly whereabouts in the gastrointestinal tract the object is

INVESTIGATION

Prior to deciding what investigations are appropriate a decision has to be made as to whether it is likely that the object will be passed or become lodged, and if lodged is it likely to cause mucosal erosion. If it is felt that the object is likely to become lodged and may cause erosion then every effort should be made to locate it (dentures usually do become lodged and often cause erosion)

If there is any doubt the case should be discussed with the Senior Doctor on duty

Radio-opaque Large Blunt Objects

A chest X-ray should be taken followed by a lateral chest X-ray in the adult to include the neck. If no object is seen this should then be followed by an abdominal X-ray if the lateral chest X-ray proves negative

Non Radio-opaque Large Blunt Objects

These can be localised by either barium swallow or endoscopy

MANAGEMENT

- If the object is seen to be lodged in the oesophagus the patient should be referred to the ENT SHO on duty
- If the object is in the stomach or below and deemed to be unlikely to cause harm the patient can be reassured and discharged with the advice to return immediately should they develop any symptoms. If there is any doubt the case should be discussed with a Senior Doctor on duty
- If on balance the object is deemed to be of potential harm the patient should be referred to the surgical SHO on duty for removal either by endoscopy or in extreme circumstances open surgery
3 POTENTIALLY POISONOUS OBJECTS

- These are usually small watch batteries, which contain either mercury (poisonous) or sodium or potassium hydroxide (corrosive)

- The vast majority of these will pass completely uneventfully. However occasionally a battery will leak and cause problems

- The priority therefore is to locate the object and to observe it until it is passed

INVESTIGATION

- Check the airway for obstruction ensuring nothing is stuck in the pyriform fossa

- Examine the mouth for signs of chemical burns that may indicate the battery was leaking before ingestion. Examine the abdomen

- Due to their small nature virtually all batteries will be already in the stomach or intestines and therefore an abdominal X-ray should be performed

- If no battery is seen an AP chest X-ray should be obtained followed in adults by a lateral chest X-ray to include the neck

- If possible identify the type of battery (from the packaging or a matching battery) and determine whether it is new or used. Call a Poisons Centre who will identify the contents

MANAGEMENT

- If the battery is demonstrated in the oesophagus the patient should be referred to the Senior House Officer in ENT for immediate removal

- If the battery is demonstrated intact in the stomach or below and the patient is asymptomatic they can be reassured and brought back to ED Clinic the next day for a repeat abdominal X-ray with the advice that if they develop any symptoms whatsoever they should return to the Emergency Department immediately

- Watch out for fever, abdominal pain, vomiting or blood in the stools.

- If a mercury battery remains in the stomach for more than 24 hours and/or in leaking it should be removed

- If a non-mercury battery remains in the stomach for more than 48 hours and/or in leaking it should be removed

- Examine the battery once it has been passed to confirm the type and whether it is intact. Consider the need for estimation of blood and urine mercury levels

- If the patient is symptomatic, there are signs on X-ray of disintegration of the battery, or there is delay in passage, they should be referred immediately to the paediatric SHO if a child, or to the surgical SHO if an adult

References:
1. British Battery Manufacturers Association, Battery Ingestion Clinical Guideline
4 SHARP OBJECTS

- The majority of sharp objects will pass uneventfully
- However all sharp objects need to be confirmed or excluded by radiography

INVESTIGATION

The first investigation is an abdominal X-ray. If no foreign body is seen an AP chest X-ray should be obtained followed in adults by a lateral chest X-ray to include the neck

TREATMENT

- If a sharp object is demonstrated in the oesophagus the case should be referred to the Senior House Officer in ENT
- If a sharp object is demonstrated in the stomach or below the case should be referred to the paediatric SHO if a child, or to the surgical SHO if an adult

5 ANIMAL BONES

- Bones from either fish or chicken can be relatively sharp and may lodge in the pharynx or upper oesophagus
- However the sensation of a lodged bone can frequently be mimicked by a small scratch in the oesophageal mucosa
- Direct visualisation with a good light and tongue depressor may reveal a fish bone lodged on the tonsil or base of the tongue. This may be removed with Tilley’s forceps

INVESTIGATION

A lateral soft tissue neck X-ray should be obtained. It is important to realise that several types of fish bone are not radio-opaque and therefore failure to see a bone on X-ray does not exclude the possibility of a lodged bone. One should also look for signs of soft tissue swelling or air in the soft tissues (perforation)

TREATMENT

- If the patient’s symptoms are relatively minor and no bone or indirect evidence of a bone can be seen on the lateral neck X-ray the patient should be reassured and discharged with the proviso that they re-attend the next day should their symptoms persist
- If the patient’s symptoms are more severe, they can point unequivocally to the level where they feel the bone is lodged, or signs are visible on X-ray they should be referred immediately to the ENT SHO

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