

## Case report

### Foreign body stone in oesophagus: a unique case

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#### Abstract

Foreign body ingestion is a common occurrence in children and in specific high-risk groups. It is usually diagnosed based on a history of ingestion given by the patient or an observer. However, children and mentally retarded adults may be unable to give an accurate history, and a high index of suspicion must be maintained in these groups. We report a rare case of foreign body stone in an mentally retarded adult which presented with drooling and impaired feeds, thence enabling for high index for suspicion.

**Keywords:** child, foreign body, oesophagus

#### Introduction

Oesophageal foreign bodies are common in otolaryngology practice. All sorts of foreign bodies from organic to non-organic have been variedly described in the literature. Eighty percent of all foreign body ingestions occur in children, with a peak incidence being between the ages of 6 months and 3 years.<sup>1</sup> Here, we present a rare case of large-sized stone in the cervical oesophagus in a 35-year-old male patient with mentally retarded. The uniqueness of the foreign body warranting high index of suspicion merits discussion.

#### Case report

A 35-year-old male hailing from a hilly district in Eastern Nepal was brought to the emergency department with chief complaints of excessive drooling of saliva and inability to take in feeds for 7 days (Fig 1). The condition was not associated with difficulty in respiration or noisy breathing. The patient had history of pre-term

birth and also history of neonatal resuscitation. He had delayed developmental milestones and had poor speech and language development.



**Fig 1:** Mentally retarded patient

On examination, the patient was haemodynamically stable and breathing normally. The Treacher drooling scale was 5. There was excessive pooling of saliva on bilateral pyriform sinuses with adequate gag reflex. There was no swelling visible in the anterior neck, but on palpation the patient had an expression of discomfort. The central nervous system examination revealed delayed cognitive developments with adequate motor responses.

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Cervical X-Ray revealed a homogeneous radio-opaque shadow from C3-C7 level (Fig 2, 3). Rigid oesophagoscopy under general anesthesia was planned. Patient had short neck and difficult intubation was anticipated. Nasotracheal intubation was done using flexible fibrescope. Intraoperative findings revealed a large stone of 5 X 4 sq. cm with a few broken pieces 15 cm from the upper incisor teeth. After 3 attempts with forceps and suctioning the stone was taken out with no mucosal breach (Fig 4). Patient was extubated and kept in post operative ward for observation. On the first post-operative day the patient was allowed sips of water and light juices. On the second post-operative day the patient was assessed for adequate food intake and was discharged. The patient was followed up after 7 days and was doing well.



**Fig 2:** X-ray chest anteroposterior view showing radio opaque shadow in neck region



**Fig 3:** X-ray chest Lateral view showing radio opaque shadow in prevertebral region



**Fig 4:** Foreign Body (large stone of 5 X 4 sq. cm with a few bits of broken stone)

### Discussion

Patients presenting with drooling and difficulty in feeds warrants investigating the causes which include allergic rhinitis, bacterial rhinosinusitis, viral rhinosinusitis, bell's palsy, craniofacial syndromes, cricopharyngeal achalasia, damage to swallowing structures, enlarged tonsils and adenoids, epiglottitis, esophageal dysmotility, foreign body, hand foot and mouth disease, head injury, herpes stomatitis, hypoxic brain injury, ingestion of caustic substance, midline nasal masses -encephalocele, glioma, nasal polyposis, oral trauma (e.g. burn, injury or infection), physiological (normal in children under 4), abscess, severe pharyngotonsillitis, severe tonsillitis, stroke, teething and tooth decay.<sup>1</sup>

To investigate and come to a diagnosis of drooling due to foreign body where there is no history suggestive of the foreign body one has to have a high index of suspicion of likely causes.

In the present case, we had a foreign body stone (5X4 sq. cm) impacted in the cervical oesophagus. Common sites for obstruction by an ingested foreign body (FB) include the cricopharyngeal area and the middle one-third of the oesophagus (at the level of the aortic arch) and lower oesophageal sphincter (just above the diaphragm).<sup>2</sup> There are cases where oesophageal FB causing respiratory complications either by physical compression over the airway or by erosion into the trachea.<sup>3,4</sup> Oesophageal FB can damage the oesophagus

and lead to strictures.<sup>5</sup> Apart from eroding into the trachea, the object can erode into the aorta, leading to exsanguinations and death. In this case, we were able to remove the foreign body by rigid oesophagoscopy rather than going for open cervical exploration in spite of its large size and long duration of impaction.

The literature presents only one case of impacted foreign body stone in a neonate,<sup>6</sup> but no cases have been reported in adult mentally challenged patient.

The clinical value of this case report is that one must have a high index of suspicion in specific high risk populations for the possibility of unusual foreign body impacted in the oesophagus.

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