



Accidentally Swallowed Partial Denture : A Case Report

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ABSTRACT

This case report describes the presentation and successful rigid esophagoscopy removal of an impacted artificial partial from the mid oesophagus where it had been in-situ for 2 days. A 60 year old male presented with history of ingesting his denture 2 days back. It was removed by rigid esophagoscope and esophagocopy forceps done under general anaesthesia.

KEYWORDS

rigid esophagoscope, Esophagus, Artificial partial denture

Introduction:

Ingestion of foreign bodies is a common occurrence, more in children and less in adults. Most common foreign bodies in children are coins but batteries, food, peanuts, candy and nuts, button and safety pins are also reported. In adults chiefly food boluses, meat bones or cartilages, fish bone dental prostheses or metallic wires.

The majority of ingested foreign bodies will pass spontaneously. Pre-endoscopic series have shown that 80% or more of foreign objects will likely pass without the need for intervention.^{1,2} Impaction, perforation, or obstruction often occurs at GI angulations or narrowing.³ Hence, patients with previous GI tract surgery or congenital gut malformations are at increased risk.^{4,5} Once through the esophagus, most foreign bodies, including sharp objects, pass uneventfully.^{1,2,5} However, ingestion of sharp and pointed objects, animal or fish bones, bread bag clips, magnets, and medication blister packs increase the risk of perforation.^{2,4,5}

Dentures account for 11.5% of impacted foreign bodies.⁶ Impaction of dentures in the esophagus is a distressing experience for the patient and can lead to serious consequences such as esophageal perforation. Patients usually present with history of accidental swallowing, often while eating or during sleep or in association with trauma, seizures, or in presence of some degree of psychological dysfunction.^{6,7,8} The common signs and symptoms of an impacted denture are odynophagia, dysphagia, or simply pain and tenderness in the neck or chest.^{9,10,11}

Diagnosing ingested dental prostheses can be difficult due to their radiolucence makes radiological localization almost impossible, and because of their rigidity, large size, irregular and unyielding edges, impacted dentures are apt to produce lacerations during endoscopic removal from gullets rendered friable by impaction.

Delays in treatment may result in serious complications. Patients often present with a vague history and very few reliable clinical signs.

The best method of removing impacted foreign body remains controversial. Rigid endoscopic removal of foreign body was developed by Chevalier Jackson about a century back. Flexible fibre optic endoscopic removal, which can be done under local anesthesia in outpatient department.

CASE REPORT:

60 year old male was referred to the otorhinology department of Government Medical College, Kota with the complaint of unable to swallow liquid as well as solid since 2 days with history of with history of ingesting his denture 2 days back. An

X-ray of the neck and chest region AP and lateral view was unremarkable. On rigid esophagoscopy under general anaesthesia, we found the denture at about 19 cm from the upper incisors. The denture was removed with the help of esophagocopy forceps (Fig. 2). No injury to the oesophageal wall was noted post-operatively. The post operative period was uneventful and the patient was allowed orally after 12 hours. The patient was discharged after observation for a 48 hours.



Figure-1



figure-2

Figure-1

figure-2



Figure-3

Discussion:

The common sites of impaction of foreign bodies in oesophagus are post cricoid region, at the level of aortic arch, left main bronchus and diaphragm. There is one more site of impaction especially in cases of flat objects like coin which is at the level of T1, i.e., thoracic inlet.

Impacted dentures may lead to fistula formation or esophage-

al perforation⁸ which is a serious complication. Beyond 24 h after ingestion, the rate of complication multiplies several-fold, from 3.2% at 24 h to as high as 23.5% after 48 h.¹²

Even though X-rays remain useful [5] and are the most commonly performed initial investigation, their results need to be viewed with caution. One study showed that lateral radiographs of the neck changed the management approach in only 1.4% of cases¹³

Rigid esophagoscope is routinely used as an effective tool to remove foreign body. Today the methods available for extraction are diverse, including flexible fiberoptic endoscopy and other non-endoscopic approaches. Use of rigid instrument can be difficult and dangerous, especially in aged persons with hypertrophic changes in the cervical spine or with limited spine mobility or in thick-neck person with full set of teeth. In such cases use of flexible instruments is suggested. Though rigid esophagoscope still remains the gold standard for foreign body retrieval, endoscopist continue to develop new forceps and methods of handling esophageal foreign body. Through the use of "over-tubes," even large and sharp objects have been successfully retrieved. Flexible esophagoscope was found to be as effective as rigid esophagoscope in retrieving esophageal foreign bodies.¹⁴

Conclusion:

Early diagnosis and treatment will avoid the oedematous reaction and mucosal infection and necrosis that heighten the risk of rigid oesophagoscopy. Reported late complications of the undiagnosed swallowed denture include extraluminal migration from the oesophagus causing either a diverticulum or perforation.

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