



## RESEARCH ARTICLE

### AN IMPACTED DENTURE IN THE LOWER ESOPHAGUS- REMOVAL BY SURGICAL METHOD -A CASE REPORT

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#### ARTICLE INFO

##### Article History:

Received 25<sup>th</sup> March, 2021

Received in revised form

25<sup>th</sup> April, 2021

Accepted 29<sup>th</sup> May, 2021

Published online 30<sup>th</sup> June, 2021

#### ABSTRACT

Accidentally swallowed dentures are one of most common foreign bodies of upper digestive tract in elderly people and it can lead to severe complications such as esophageal rupture , hematemesis and mediastinitis. Therefore an early detection and early intervention are important. We are reporting a case of accidentally swallowed denture. After failure of endoscopic retrieval, patient underwent surgery. This case highlights the importance of surgical intervention for patients with impacted dentures.

#### Keywords:

Endoscopy,  
Esophagus,  
Medistinitis.

## INTRODUCTION

Impacted foreign bodies in the esophagus are common both in children and adults. In children coins, pieces of toys etc., are commonly seen while in adults and elderly, orthodontic appliances are most common cause of accidental swallowing. An accidental ingestion of dentures can create surgical emergency that can lead to serious complication even death from aspiration of the foreign body (1). Because of their sizes, rigidity and pointed edges; dentures get frequently impacted in the oesophagus and are difficult to retrieve endoscopically (2). Considering the risk of complication, any patient with history of dysphagia and missing denture must be addressed as soon as possible.

## CASE REPORT

55 yrs male patient with history of accidental ingestion of denture was referred from peripheral centre for Gastroentrolgy opinion. On endoscopy, denture was seen impacted at 25 cm from incisor, causing perforation at both sides (Fig.1,2). Endoscopic retrieval of denture was tried but failed. Patient was referred to surgery deptt for surgical intervention.

CT thorax shows irregular shaped metallic foreign body at mid esophagus at level of D6-D7 vertebrae with evidence of esophageal perforation. Patient underwent Trans Hiatal Esophagectomy with removal of denture with Feeding Jejunostomy with bilateral ICD insertion (fig.3,4). There was perforation of size 3\*3 cm just above GE junction. Denture was impacted at 25 cm from incisor with one end perforation through esophagus and it was lying in posterior mediastinum (fig.5,6).

## DISCUSSION

Though coins are the commonest foreign bodies in esophagus of children, dentures are common in old people. This may be due to decreased sensation of oral cavity in denture wearers or due to the poor motor control of laryngopharynx(3). Mostly patients presents with dysphagia (92%) rest include retrosternal pain and fullness, paraesophageal abscess, odynophagia and mediastinitis. X rays can determine the exact sites of impacted foreign body, if it is radiopaque. Dentures, however, are frequently made of acrylic resin, which is a radiolucent material and thus, they are difficult to assess on plain X-Rays, though the radio-opaque wire hooks of the dentures can sometimes be seen, if they are present (1,4).Most of the swallowed foreign bodies are impacted at cervical and

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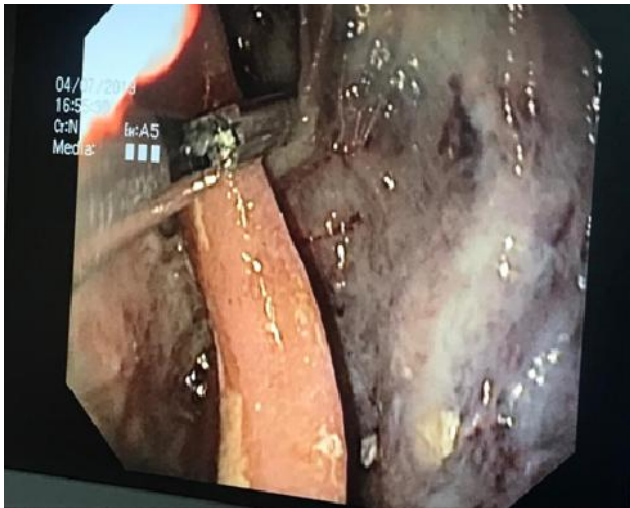


Fig.1, 2. Endoscopic view – impacted denture



Fig.3. Trans- hiatal esophagectomy

upper esophagus. The small dentures without hooks usually pass to the anus. A prolonged impaction of dentures with sharp hooks can cause peri-esophagitis, necrosis and perforation or fistula formation. Esophageal foreign bodies account for approx.



Fig. 4. Denture retrieval



Fig.5,6. extracted denture with sharp ends

20 % of all G I foreign bodies. 10 -20 % of the patients required non-operative intervention and 1% or less require surgery. The reported mortality from treated esophageal perforation is 10-25% when intervention is initiated within 24 hours of perforation and it is 40-60% when treatment is delayed. Thus, there is no room for conservative management in cases of impacted dentures. Few reports have described the usefulness of an endoscopic removal, even for sharp or penetrating foreign bodies (5-7). However, the sharp hooks of the dentures are likely to damage the oesophageal or the pharyngeal wall (3). Consequently, it is difficult to remove the dentures endoscopically.

## CONCLUSION

The experience of this present case shows that prompt management of an impacted denture in the esophagus is preferably surgical rather than endoscopic. Also, even if the patient does not complain of dysphagia, even then, patient should be investigated thoroughly with respect to position of denture and its associated complications. It should be treated as early as possible, so that any catastrophe can be prevented. In case of suspected accidental ingestion of foreign body, patient must be advised to go to nearby hospital as quick as possible because of the risk of complications like perforation.

**Acknowledgment:** none

**Conflict If Interest:** none

**Funding Details:** none

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