

# Denture In Esophagus Mimicking Carcinoma

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**F**oreign bodies in the oesophagus are common in both children and adults[1]. The usual presentation is with sudden onset of dysphagia and odynophagia, stridor and dyspnoea[2]. A history of accidental ingestion of the foreign body is usually forthcoming in adults. Accidental ingestion of dentures is common in adults and may escape detection, as they are often radiolucent.

We report a case of unsuspected denture in esophagus mimicking a carcinoma on imaging studies, which was detected and treated after nearly 4yrs.



Fig 1: Barium swallow study reveals filling defects in the cervical oesophagus.

## CASE REPORT:

A 56 years man presented with a 2-month history of dysphagia for solids associated with odynophagia. No history of loss of dentures was noted then. Barium study revealed filling defects along the posterior wall of a short segment of cervical esophagus causing irregular luminal narrowing and minimal mucosal irregularity with no widening of tracheo-oesophageal stripe (Fig1). CT scan revealed circumferential wall thickening of a small segment of cervical esophagus with obliteration of the lumen

presumed to be due to malignant neoplasm (Fig2). Esophagoscopy revealed slough at 18cm along posterior and lateral wall. Biopsy revealed inflammatory cells with no malignant cells.

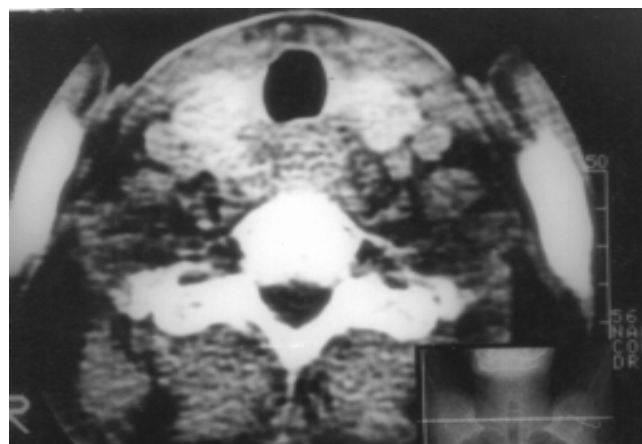
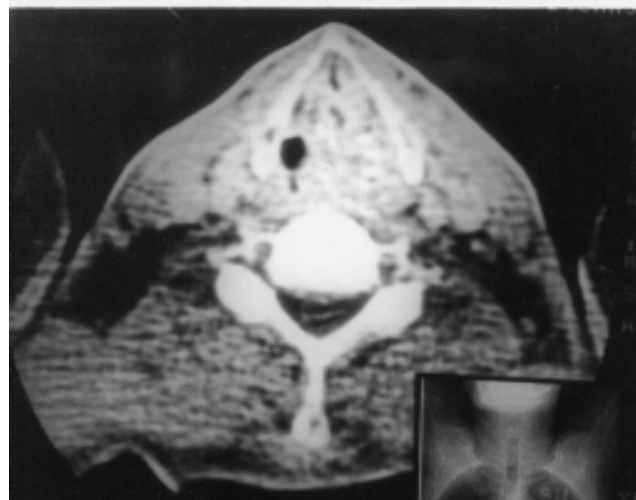


Fig 2(a) and (b) : Axial post contrast CT scan reveals concentric wall thickening of cervical oesophagus with obliteration of the lumen.

After the initial esophagoscopy the patient experienced relief of dysphagia and was able to take full meals. In view of relief of symptoms the patient was observed for nearly 2 years with regular follow up every 3 months.

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After 2 years the patient presented with recurrence of dysphagia and cough during swallowing. A Barium study revealed persistence of the filling defects and mucosal destruction in lower cervical oesophagus. There was now a tracheo-oesophageal fistula with barium outlining the tracheo bronchial tree (Fig 3). Esophagoscopy revealed a stricture with possibility of growth at 19 cms and no distal negotiability of scope. A DL scopy revealed fixed left vocal cord and oedematous mucosa. Over the next 6 months the patient underwent seven oesophagoscopies and four dilatations for the stricturous segment and all the biopsies done revealed granulation tissue. After the dilations patient had relief from dysphagia and was lost to follow up. He presented 19 months later with left lower lobar pneumonia and dysphagia.



Fig 3: Follow up Barium study 2 yrs later reveals a tracheo oesophageal fistula and persistence of filling defects.

Esophagoscopy revealed the same findings as noted previously and surgery was recommended. Esophagotomy was performed after resolution of pneumonia and a denture with granulation tissue was removed. The tracheo-oesophageal fistula however persisted post operatively and was treated by submucous fibrin glue injection. There was complete healing of the fistula as seen on endoscopy.

## DISCUSSION

This is the second reported case in which an old impacted denture in the oesophagus mimicked an oesophageal carcinoma.

In an earlier case reported by Garg et al [3] in 1995, a 66 yr old woman presented with progressively increasing dysphagia 6yrs after accidental ingestion of denture which was removed endoscopically using polypectomy snare.

However impacted dentures can be fatal as reported by Singh et al [4] in their case, where a radiolucent denture impacted in the esophagus for only 3weeks had eroded in the aorta and resulted in fatal haemorrhage during an attempt to remove it endoscopically.

The initial endoscopy in our patient might have realigned the denture and made an easier passage for food or could have dislodged an impacted food bolus at the level of the denture. There might have been some modification of diet facilitating unobstructed food passage, and thus the asymptomatic periods noted in our patient.

Subsequently repeated friction between the foreign body and mucosa during food passage and accompanied inflammation and foreign body reaction could have made the wall friable causing erosion of the denture into the trachea resulting in tracheo-oesophageal fistula.

Accidental ingestion of dentures may escape detection in oesophagus since they are radiolucent. In a case reported by Payne et al [5], a young man accidentally swallowed a denture in his sleep which could not be detected on Barium studies and plain X-rays.

Experimental work by Coombe [6] has demonstrated that addition of 12% Barium Fluoride to acrylic used by dental manufacturers can render the dentures radio opaque preserving its mechanical and aesthetic properties.

This case reminds us the importance of eliciting a detailed history of accidental loss of dentures especially in an elderly patient presenting with dysphagia. Also to avoid potential complications of a radiographically undetectable denture, there is a need for modified dental acrylic with some degree of radio opacity.

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