

Case Report

Swallowed Artificial Partial Denture causing subacute intestinal obstruction:**Case report**Neeraj Sharma¹, Debjani Sarkar², Saurabh Wahi³, Mayank Mishra⁴, Alok Tripathi⁵¹Senior resident, Heritage Institute of Medical Sciences, Varanasi, Uttar Pradesh, India²Junior resident, Heritage Institute of Medical Sciences, Varanasi, Uttar Pradesh, India^{3,4,5}Assistant Professor, Heritage Institute of Medical Sciences, Varanasi, Uttar Pradesh, India***Corresponding Author:**

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Abstract: Artificial denture ingestion is a multidisciplinary problem. Not only artificial but fixed dentures are also at high risk of ingestion or aspiration in case of their spontaneous or traumatic dislodgement. Clinical presentation of denture ingestion varies with the site of impaction and its associated complications with passage. It is an uncommon problem requiring awareness of many specialists including dentists, surgeons, otolaryngologists and anesthesiologists. Complications include obstruction, bleeding, perforation fistulae with neighbour organs. Here a patient presented to casualty with symptoms of sub-acute intestinal obstruction after alleged history of artificial denture ingestion. Patient was operated and denture was retrieved from transverse colon.

Keywords: artificial, denture, ingestion, obstruction, enterotomy

INTRODUCTION

Artificial denture ingestion is a multidisciplinary problem[2]. Not only artificial but fixed dentures are also at high risk of ingestion or aspiration in case of their spontaneous or traumatic dislodgement. Clinical presentation of denture ingestion varies with the site of impaction and its associated complications with passage. It is an uncommon problem requiring awareness of many specialists including dentists, surgeons, otolaryngologists and anesthesiologists. Complications include obstruction, bleeding, perforation fistulae with neighbour organs.

Denture ingestion [7] is more common in patients with alcohol and drug abusers, psychotic disorders but is rare among young and healthy people. Most common site of impaction is oesophagus [1]; small bowel been a rare site. In our case, denture was found stuck to colonic wall with one of its hooks that prevented its further progression. Patients can present with vague symptoms of neck pain, dysphagia, odynophagia and excessive salivation. The clinical

history may be vague, and patients may not report a definite history of swallowing their dentures secondary to trauma, intoxication or loss of consciousness.

CASE PRESENTATION:

A 47 year old male presented to the casualty with symptoms of nausea, abdominal pain and recurrent abdominal distension that resolved spontaneously. History of artificial partial denture dislodgement and ingestion was present 3 days back. A diagnosis of subacute intestinal obstruction was made on findings of X-ray abdomen, which also showed foreign body at the level of duodeno-jejunal junction. Patient was kept under observation for 48 hours and serial x-rays 24 hours apart, showed progression of foreign body upto transverse colon and no further.

Thereafter exploratory laparotomy was planned, and denture was retrieved by enterotomy in transverse colon [8]. Postoperative course was uneventful and patient discharged on 8th day with relief of all symptoms.



Fig 1 Artificial partial denture retrieved from transverse colon



Fig-2: Arrow showing enterotomy site in mid transverse colon; was later closed with 2 layers interrupted absorbable suture.

DISCUSSION:

The diagnosis is further complicated by the fact that polymethylmethacrylate (PMMA), the resin base used for construction of partial dentures, is radiolucent [5]. Some temporary partial dentures (stay plates or plates) may have clasps, which are metal based for improved retention, which was present in our case and made possible to be identified on X-ray.

The delay in diagnosis can result in significant morbidity. If undetected, retained foreign bodies can lead to significant edema that causes obstruction or perforation, or both. Multiple case reports have documented the development of tracheoesophageal, aortoesophageal and even esophago-broncho-aortic fistulas [4].

Knowledge of the subtle imaging findings of these partial dentures and interpretation of these studies with sufficient clinical history may lead to earlier diagnosis and treatment.

CONCLUSION:

Denture loosening leads to accidental ingestion of denture and can lead to grave complications such as

obstruction, bleeding and even perforation [6]. Patients with loose dentures should be immediately recommended to visit dentist as soon as possible.

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