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Accidental ingestion of Gold inlay restoration- A case report

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Abstract: *Ingestion of the dental prosthesis seems to be more common than aspiration and is mainly seen in elderly patient causing serious complications. We present a case of 67 years old man who accidentally swallowed a 10 years old gold inlay restoration while eating. The diagnosis was made by radiographic examination revealing the presence of the foreign body in the right oropharynx.*
Keywords: *Ingestion, Foreign body, Aspiration, Gold Inlay, Gastrointestinal tract.*

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I. Introduction

Accidental ingestion of dental prosthesis is a common clinical problem. Prosthesis lodged in different parts of gastrointestinal tract lead tovarious surgical complications including perforation, bleeding, penetration toneighbour organs and obstruction. The most common site of impaction is oesophagus[1].

To minimize these complications early diagnosis and adequate management is required. The swallowing of removable prosthesis has greater difficulty in retrieval than fixed. Large size and configuration of the prosthesis prevent smooth glide and cause impaction in the oesophagus[2].

About 80% of all ingested foreign bodies pass out through entire gastrointestinal tract spontaneously and 20% of them can impact at different levels of the tract[3]. Aspiration of dental object may shift causing airway obstruction potentially leading to hypoxemia and fatal infections[4].

If significant symptoms developand object fails to progress then endoscopic or surgical intervention is indicated. Prosthesis made of radiolucent materials (removable) on ingestion can make radiographic identification difficult[5]. Therefore,it is suggested that radio opaque material should be placed during fabrication to aid in radiographic identification.

II.Case Report

A 67years old man accidentally swallowed his10 years gold dental inlay restoration while eating. Patient felt itching at the right side of the neck after half an hour of the ingestion. A head and neck and chest radiograph was done which demonstrated a radio-opaque mass near the rightoropharynx (fig.1). During the first 1hr the patient was asymptomatic and advised to take natural laxativesand wait to pass with the faecal matter[6].

The inlay was fabricated about 10yrs back which was good in retention but from last 2 months food lodgement and bleeding from the gums in that region was observed. After ingestion of the inlay patient was kept under observation.He didn't observed any pain or discomfort. Patient was comfortable in breathing and swallowing. He was given natural laxatives immediately after ingestion and after 20 minutes again radiographs were done and inlay was not visible (fig.2). Inlay was passed out along with the stools. After 2days of out-patient follow-up the patient was well.

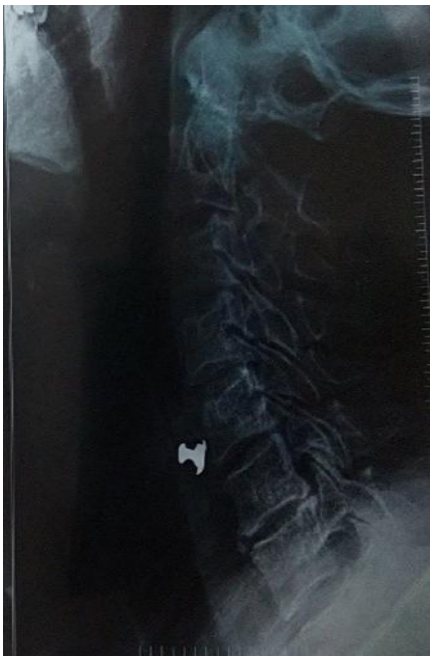

fig.1

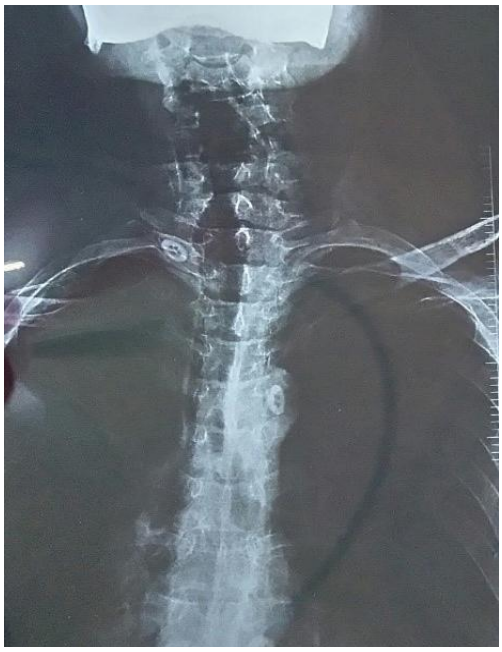

fig.2

III. Discussion

Foreign bodies of aero digestive tract is not an uncommonproblem. However, the most common complications is perforation of gastrointestinal tract. Important issue increasing the risk of dental prosthesis ingestion is lack of patient awareness, regular check-ups and denture change or compliance[7]. Aspiration is mostly encountered among patients with psycho-neurological deficit, alcohol intoxication, drug overdose, general anaesthesiaand maxillofacial trauma[8].In conscious patients aspiration oringestion can occur during fall, eating, drinking and sleep. Dental prosthesis are implemented for the improvement of mastication, occlusion and aesthetics.Dentists should be aware of the potential problems of prosthesis ingestion and its management.

The upper constriction being the narrowest portion of the oesophagus and thus is the commonest site of the impaction of dental prosthesis[9]. Most of the reported cases demonstrate ingestion of removable dentures especially partial ones. However, fixed dentures also become a subject of ingestion in case of spontaneous or traumatic dislodgement[10].

Complications related to denture ingestion are necrosis, perforation, penetration to adjacent organs, bleeding and obstruction. Gastrointestinal bleeding is a result of ulceration and vessel erosion, oesophageal obstruction can occur but rare with inlay ingestion[11]. The mostfrequently ingested dental objects include teeth, fillings,crowns, bridges, and dental tools.

More than 90 % of the ingested patients had no symptoms. Once ingestion is confirmed, immediate treatment should be done, since the majority of the cases need endoscopy or even surgery. Dental gold inlay is radio-opaque and can be easily localised and identified on a standard chest radiograph. In cases both posterior-anterior and lateral X-ray films should be taken to confirm the location of foreign objects in the gastrointestinal tract[12].

However, once ingestion is confirmed, observation could be performed until the foreign object excreted. If there is no possibility of excretion, endoscopy should be chosen. The follow-up also suggested that the treatment was suitable and the complications were under control. The prognosis was pretty good.

If aspiration occur, patients can be instructed to cough forcefully to expel the object, however, the vast majority of dental aspirations require medical evaluation and intervention[13]. Even asymptomatic patients should be evaluated as an aspirated object may shift causing airway obstruction. Other uncommon complications of dental aspiration include airway obstruction potentially leading to hypoxemia and perforation leading to potentially fatal infectious or bleeding complications.

In this case the gold inlay was cemented almost 10yrs back and it was working well. The factor which may be considered for its dislodgement and subsequent ingestion was the presence of periodontal disease in that region. Periodontal pocket leads to food lodgement and further causes dissolution of the cement and secondary caries leading to loosing of the gold inlay. The prognosis for dental ingestion is typically excellent, as it was in this case.

Thorough clinical and radiological evaluations are required for the ingested objects. Early location of an ingested dental prosthesis facilitates appropriate and timely treatment management and referral.

IV. Conclusion

Ingestion of fixed and removable dental prosthesis is a common complication. Early diagnosis and thorough documentation is necessary so as to provide vital treatment options. Patients with loose dental prosthesis and periodontal problems associated with the same tooth should revisit their dentists immediately.

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