LETTERS

Slipped dentures in esophagus – some facts

Dentures are usually accidentally ingested by elderly patients because of decrease in sensation and control of the oropharyngeal complex. It may also be seen in inebriated and epileptic patients. Ingestion of a removable partial denture is a more serious situation because the clasps of partial dentures are likely to perforate the esophagus.\textsuperscript{1,2}

We present a retrospective analysis of our experience with 50 consecutive cases (mean age 46 years; 34 men) of accidentally ingested dentures, seen in the Institute over 20 years. All cases had ingested partial dentures, in sleep, while eating or in inebriated state. Symptoms following ingestion were choking, cough, pain, dysphagia and sensation of lump. We also observed excessive spitting of saliva because of painful deglutition in 14 cases. In 20 cases the denture could be localized by X-ray while in the rest it was detected by esophagoscopy.

In 46 cases the denture was removed by rigid esophagoscopy with the help of foreign body forceps; two patients required thoracoesophagoscopy and one refused treatment. In one case (a 45-year-old man) there was spontaneous expulsion of the denture per rectum. Two patients developed postoperative subcutaneous emphysema and were managed conservatively. Thirty-five dentures had single tooth, 8 had two teeth each, and 7 had three or more teeth each. Twenty dentures had wire clasps. In half the cases the patients were aware that the dentures were loose and used to come out spontaneously. In 45 cases the site of impaction was upper-end esophagus just below the cricopharynx (Fig); in five cases it was in the mid esophagus. The dentures were lying in the esophagus for 1 to 7 days except in one case where it was lying for 8 months.

In recent years there has been a steady rise in esophageal foreign bodies of dental origin due to increased use of dentures.\textsuperscript{3} Dentures, being radiolucent, are difficult to localize radiologically.\textsuperscript{4} Unilateral removable partial dentures replacing one or two teeth are easy to ingest because of their small size. The placement of a conventional fixed denture greatly reduces this risk.

Incorporation of radio-opaque material in dental resins should be made mandatory for easy localization and early removal.\textsuperscript{5} Payne \textit{et al.}\textsuperscript{6} suggested that barium fluoride be included in the manufacture of dentures. Accidental ingestion of foreign bodies of dental origin may result from improper treatment planning, short cuts used in the fabrication of the appliance as well as faulty handling of the prosthesis by patients. Dentures that become loose and come out spontaneously should be changed.

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References

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An economical endoscope disinfection container

The containers in use for immersion of endoscopes for disinfection have a broad opening. The disadvantage of such containers is that they require larger amount (about 5 liters) of disinfectant to submerge the endoscope. There is a need for a container that can submerge an endoscope in a smaller amount of disinfectant to save the cost of the latter. A duodenoscope is approximately 130 cm long and gastroscope 110 cm long, with diameter of 1 to 1.3 cm. They require a container 130 cm long and 3 cm in diameter for submersion. Biopsy forceps are 170 cm long; a container for disinfection of accessories should be 270 cm long to immerse various accessories.

A transparent pipe of 3 cm diameter and 130 cm length made of acrylic is blocked at one end by sticking an acrylic disc of 3 cm diameter with an adhesive. The

Fig: X-ray soft tissue neck lateral view showing denture with wire clasps just below the cricopharynx

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border of the open end of the cylinder is padded with sponge. About 700 mL of disinfectant can completely fill the container.

A wooden bar of 150 cm length is fixed to a flat rectangular wooden base of 40 cm x 25 cm. Two other square wooden boards 10 cm x 10 cm in size, with central hole of 4 cm diameter, are fixed at 30 cm and 60 cm from the base of the stand perpendicular to the bar. The top flat rectangular wooden board, 25 cm x 10 cm in size, with a cut slit of 5 cm x 5 cm on either side, is fixed perpendicular to the top of the long bar. It allows the endoscope top and its umbilical cord to rest comfortably (Fig). The wooden board top is padded with soft sponge to avoid damage to the endoscope. The wood is covered with water-resistant sheet to avoid damage to the container stand by water.

A flexible transparent medical-grade PVC tube of 230 cm length and 1.7 cm diameter is fixed in a 'U' shaped manner on the back of the long bar of the disinfectant stand 25 cm below the top, with the help of clips. Two hooks are applied 3.5 cm below the top on the long bar to hang the accessories when being dipped in the disinfectant container. The container requires 200 mL of the disinfectant to fill it. Both containers are fixed over the endoscope stand (Fig).

It costs Rs 1000/- to prepare these low-volume disinfectant containers and the stand. The disinfectant glutaraldehyde is available in 1000-mL commercial packs. The 100 mL left after filling the two containers (700 mL + 200 mL) can be used to replace losses of the disinfectant during removal of the endoscope and accessories.

Over the past 9 months we have been using these disinfectant containers with ease and effectively for disinfection of endoscopes and accessories.

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Is Helicobacter pylori eradication useful in non-ulcer dyspepsia?

The role of H. pylori eradication in non-ulcer dyspepsia (NUD) is controversial. We report our results in patients with NUD diagnosed as per standard criteria.1

This study was done prospectively over a three-year period (January 1998 to December 2000). One hundred consecutive patients with NUD who were positive for H. pylori by the urease test were studied. All patients had upper GI endoscopy done to exclude gastro-esophageal reflux disease or peptic ulcer, ultrasonography to exclude biliary tract disease and stool examination for parasites. They were treated with anti-H. pylori regimen comprising omeprazole 20 mg bid, clarithromycin 500 mg bid, and amoxicillin 500 mg qid for 10 days or omeprazole 20 mg bid, metronidazole 400 mg tid and amoxicillin 500 mg qid for 10 days. The choice of regimen was left to individual clinicians. Repeat endoscopy was done 6 weeks, 3 months and 6 months after completion of therapy. At each visit four mucosal biopsies were taken from the antrum within 2 cm of the pylorus, two for the urease test and two for histology by Giemsa stain. Patients who were both urease- and histology-negative were classified as having eradicated the organism.2

Symptomatic improvement was rated on a scale of 1 to 5. A score of 1 indicated no change or worsening of symptoms and a score of 5 complete symptomatic relief. For purpose of this study scores of 4 and 5 were considered good response.

Table: Good response in patients according to H. pylori status

<table>
<thead>
<tr>
<th>Follow-up period</th>
<th>Eradicated No. (%)</th>
<th>Non-eradicated No. (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 weeks</td>
<td>46/75 (61)</td>
<td>12/25 (48)</td>
</tr>
<tr>
<td>3 months</td>
<td>28/64 (44)</td>
<td>4/36 (11)</td>
</tr>
<tr>
<td>6 months</td>
<td>11/34 (32)</td>
<td>12/66 (18)</td>
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</tbody>
</table>

Although at each interval of follow-up there was a greater proportion of “good” functional response in patients who had eradicated the organism, this reached statistical significance only at the 3-month visit (p=0.008; c² test). This may suggest that eradication of H. pylori may not be useful in the long term in the management of patients with NUD. However, a larger number of patients followed up over a longer period may be needed to confirm this.