Safe retrieval of a swallowed denture using a hooded panendoscope

To the Editor:

Management of ingested foreign bodies has traditionally depended on an initial period of observation. With the use of this approach, more than 80% will pass without incident.1 The remaining impacted or symptomatic objects may require removal by surgery or endoscopy. Imaginative modifications of fiberoptic equipment have enabled endoscopists to safely extract an expanding variety of swallowed objects without the need for surgery. Jagged or irregular objects, however, represent a special problem since they may cause significant damage to the esophageal mucosa during forceful removal. This report of the successful retrieval of a sharp-edged intragastric dental prosthesis using an easily fashioned "hood" to protect the esophageal mucosa during extraction may be of interest to your readers.

A 52-year-old white man was admitted to the hospital complaining of a vague abdominal discomfort and shortness of breath for 24 hours. Atrial fibrillation was found and resolved over 4 days of medical therapy. Only at this time did the patient relate swallowing part of a dental plate, broken while eating an apple 1 month previously. Radiographs of the abdomen confirmed a partly metallic and movable foreign body in the stomach. Stools at this time were guaiac negative and the abdominal examination was benign.

On the 12th day of hospitalization, the patient was taken to the operating room for an attempt at endoscopic removal of the dental prosthesis, to be followed by laparotomy if the attempt failed. Because of concern that the esophagus could be injured by the jagged metal prongs of the prosthesis, a sheath was improvised to protect the esophageal mucosa from injury. A standard condom catheter was secured over the end of the Olympus GIF-Q panendoscope with several silk sutures. The catheter was then trimmed, leaving a convex shield protruding 3 cm from the tip of the endoscope. Forward visibility was unaltered by the hood when it was retracted backward over the endoscope and lubricated for insertion. Intubation was easily accomplished with topical anesthesia and intravenous sedation. Once the instrument was positioned in the stomach, the dental plate was grasped securely with a polypectomy snare and pulled snugly against the endoscope tip. Withdrawal of the endoscope into the gastroesophageal junction served to flip the hood forward again into a position which covered the snared foreign body (Fig. 1). The entire apparatus was then withdrawn, with only mild resistance encountered at the gastroesophageal junction and in the proximal esophagus. Reinspection of the esophagus showed no injury. The patient remained symptom free and was discharged from the hospital the following day.

Sharp and irregular foreign bodies pose a special hazard of esophageal laceration during extraction. One approach to this problem involves placing a stiffening tube around the endoscope and then withdrawing the object through the plastic tube.2,3 Another report advocates endoscopically placing the object in a foam-filled plastic bag before removal.4 The "hood" method described in the present case provides a useful alternative since full visibility is maintained during intragastric manipulation. In addition, any sharp edges of foreign bodies with a diameter larger than that of the endoscope can be completely covered by the smooth latex sheath.

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Colonoscopic extraction of dentures

To the Editor:

We recently saw a patient who had inadvertently swallowed his dental plate which subsequently became lodged in the stomach. The patient was symptom free and did not require surgery. The endoscope was easy to insert with topical anesthesia and intravenous sedation. Once the endoscope was positioned in the stomach, the dental plate was grasped securely with a polypectomy snare and pulled snugly against the endoscope tip. Withdrawal of the endoscope into the gastroesophageal junction served to flip the hood forward again into a position which covered the snared foreign body (Fig. 1). The entire apparatus was then withdrawn, with only mild resistance encountered at the gastroesophageal junction and in the proximal esophagus. Reinspection of the esophagus showed no injury. The patient remained symptom free and was discharged from the hospital the following day.

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his cecum. Denture swallowing is quite unusual, and we wish to report this case in which such a foreign body was removed colonoscopically.

A 48-year-old man presented to the office in June 1979, relating a history that 2 months earlier, while chewing hard candy, he inadvertently swallowed his dental bridge. Since that time, he had been diligently examining each stool in a fruitless effort to recover his dental bridge. Serial plain x-rays of the abdomen demonstrated progression through the gastrointestinal tract of the foreign body until the month prior to presentation, when it remained stationary in the right lower quadrant (Fig. 1). His own use of cathartics had been unsuccessful. The patient was quite vehement in relating his chagrin and frustration in continually examining his stools, not having a full set of functional teeth, and the great expense necessary to replace his dental bridge.

Barium enema confirmed that the dental bridge was in the cecum. At colonoscopic examination, multiple petechiae were seen in the wall of the cecum and ascending colon, in association with the dental bridge. After some manipulation, the foreign body was snared, but the metal wire hooks, used to keep it in place in the mouth, were caught in the wall of the cecum. With a hearty pull, the foreign body was freed from the wall of the cecum and removed with the colonoscope. Following the procedure, the patient experienced no complications.

In a review of 15 patients with swallowed dentures,1 nine were removed from the esophagus by endoscopy. In only one case did the dental plate reach the colon, and this subsequently passed spontaneously. Another patient with the denture identified in the small bowel developed obstructive symptoms and was operated upon the following day because of free fluid in the abdomen. In that patient, the dental plate was found 6 feet proximal to the ileocecal valve. In another report, sigmoid colectomy was performed for a swallowed denture.2

Recently the colonoscope has been reported as useful for the identification of foreign bodies.3 In that patient, surgery was still necessary to remove the chicken bone lodged in the sigmoid colon.

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False teeth in the cecum

To the Editor:

Although endoscopic removal of foreign bodies from the upper gastrointestinal tract is commonplace, we have found