

A New Endoscopic Method for Managing Food Impaction in the Esophagus

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Summary

Previously described methods for dealing with acute food impaction in the esophagus are not uniformly efficacious, are cumbersome, and often prove dangerous. This paper describes a new technique using an endoscope which is modified such that the endoscope itself becomes a direct-vision suction device. We have successfully used the technique in seven patients with meat bolus impaction in the esophagus. The method proved quick and safe, and no complications occurred. After relieving the impaction an adequate diagnostic examination was done in all patients. In four patients with a predisposing peptic stricture and one with Schatzki's ring, treatment of the lesion was possible during the same endoscopic session.

Key words

Food impaction – Endoscopic removal –
Overtube – Endoscopic technique

Introduction

Acute food impaction in the esophagus is a medical emergency. It is important to promptly relieve the obstruction, because the incidence of complications increases with time (4). A variety of methods of removing the obstruction have been described, including the systemic administration of drugs such as glucagon (7), local instillation of enzymes (10) and gas-forming carbonated beverages (9), devices such as nasogastric tubes (8), Foley catheters (3) and endoscopy with snare/forceps retrieval. None of the methods are uniformly successful, some are cumbersome and time-consuming, and some are dangerous. We report on an efficient and safe endoscopic method using an endoscope (Pentax FG34A) with a tip modified for endoscopic variceal rubber band ligation.

Technique

A flexible overtube (Fig. 1 A) is lubricated and the endoscope passed through it. The esophagus is intubated under direct vision and the endoscope advanced till the obstructing bolus is visualized. The overtube is then passed over the endoscope and positioned in the esophagus just proximal to the impaction site. The endoscope is then removed leaving the overtube in place. The tip of the endoscope is replaced with the special screw-on drum tip (hollow plastic cylinder, 13 mm long, 12 mm in diameter) (Fig. 1 B–D). This converts the endoscope itself into a direct-vision suction device. The endoscope is then passed through the overtube and, under direct vision, the impacted bolus is suctioned into the drum and removed (Fig. 2A–C).

Results

We have used this method in seven men with meat impaction ranging in age from 40 to 67 years, median age 61 years. The impacted bolus was successfully removed in all patients, usually after two or three passes of the endoscope through the overtube. Clearing the obstruction permitted accurate diagnostic assessment of the predisposing esophageal pathology during the initial endoscopic procedure (Fig. 2 D). Benign stricture was present in four patients, Schatzki's ring and squamous cell tumor were present in one patient each; in the remaining patient no anatomical lesion was noted. The five patients (4 with stricture, 1 with Schatzki's ring) with benign esophageal lesions were treated with over-the-guide-wire Savary type or through-the-endoscope balloon dilation during the same endoscopic session. In all patients the procedure was done under topical oropharyngeal anesthesia; intravenous sedation was not given. The duration of the procedure was usually 10–20 minutes. There were no complications.

Discussion

Food (usually meat) boluses are the most common esophageal foreign bodies in the adult and in most cases predisposing esophageal pathology is present (12). The management of food impaction includes relieving the obstruction and subsequently diagnosing and, when indicated, treating the underlying lesion. The optimal method should allow one to address each of these aspects safely, preferably during a single session.

Previously described methods have drawbacks both with respect to efficacy and safety. Systemically adminis-