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Persistent foreign body sensation and pharyngeal pain due to retention of staples: an interesting sequelae of endoscopic stapling procedure

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Abstract
The surgical treatment of a pharyngeal pouch with endoscopic stapling diverticulotomy is a relatively new concept. Long-term results and complications are yet to be fully studied. We describe a patient who developed persistent pharyngeal pain and foreign body sensation due to retention of a clump of staples at the cricopharyngeal sphincter. This complication has not been reported before. This case highlights the need for repeat endoscopy rather than a barium swallow X-ray if the patients are symptomatic after stapling procedures.

Key words: Pharynx; Diverticulum; Surgical Procedures, Operative; Surgical Staplers

Introduction

Endoscopic stapling diverticulotomy is a relative new surgical procedure for the treatment of pharyngeal pouches.[1,2] The main advantages of this technique are that, it is quick, minimally invasive and is well suited for elderly patients.[3,4]

The long-term results of this new surgical procedure are yet to be fully assessed. We describe a patient who developed persistent throat pain and foreign body sensation a few months following the operation. We found a clump of staples in the cricopharynx, removal of which produced symptomatic improvement. To our knowledge, this complication has never been reported before.

Case report

A 68-year-old male was referred to the ENT department with complaints of dysphagia and a feeling of food sticking in the throat. Clinical examination was normal. Barium swallow examination, however, showed a pharyngeal pouch larger than the size of a cervical vertebral body (Figure 1). The patient underwent endoscopic stapling of the pharyngeal pouch, making an uneventful recovery. When reviewed in the clinic two months later he complained of odynophagia and the barium swallow was repeated. This showed a small residual pharyngeal pouch (Figure 2). Since he was still symptomatic, even after seven months following the operation, rigid oesophagoscopy was performed. There was a small clump of staples at the right side of the cricopharyngeal sphincter, that was removed (Figure 3). Endoscopy was repeated three months later and another staple was removed from the cricopharynx. The patient improved and is being followed up in the out-patients' clinic.

Discussion

Pharyngeal pouch or diverticulum is a pulsion diverticulum. It was first described in 1769 by Ludlow, a surgeon in

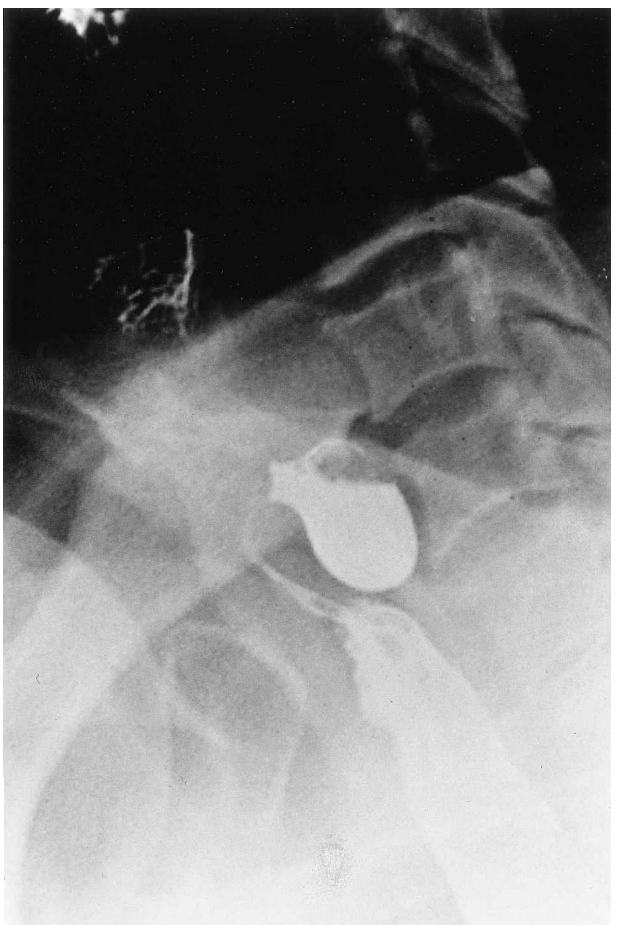

Fig. 1
Pre-operative barium swallow showing a pharyngeal pouch, larger than the size of a cervical vertebra.

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FIG. 2
Post-operative barium swallow which shows a small residual pouch with free flow of barium into the oesophagus.

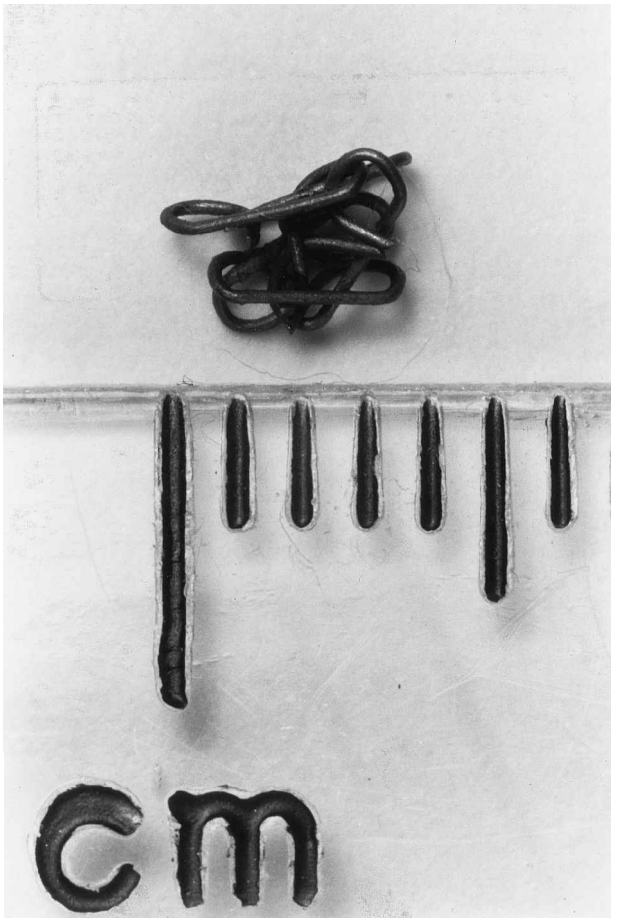

FIG. 3
Clump of staples which was removed from the cricopharyngeal sphincter.

Bristol.[5] Zenker and Von Ziemssen in 1877 published a series of 23 cases and the former's name was given to the diverticulum.[6] The first surgical intervention was in 1877 but the patient died of bronchopneumonia.[7] The clinical features of this condition are characterized by progressive dysphagia with weight loss, regurgitation of food, aspiration into the tracheobronchial tree and occasionally a mass in the neck. Malignancy arising within the pouch has been reported but is rare.[8] The surgical options for the treatment of a pharyngeal pouch are cricopharyngeal dilatation for smaller pouches and pouch excision or inversion with cricopharyngeal myotomy for larger ones. Endoscopic treatment of Zenker's diverticulum was first described by Mosher but was soon abandoned because of mediastinitis.[9] Dohlman[10] revived the endoscopic technique by describing the use of a double-lipped hypopharyngoscope and division of the cricopharyngeal septum with diathermy.

Martin-Hirsch *et al.* and Collard *et al.*[1,2] independently described a new technique of endoscopic stapling to treat a pharyngeal pouch. The advantage of this technique was that the septum between pharynx and pouch was divided and simultaneously the edges sealed with a linear cutting and stapling device. This is a safe procedure even in elderly patients, oral feeding can be commenced within hours and the hospital stay is minimized. There have been a few reported series on endoscopic stapling and the complication rate appears to be very low. These complications include a leak from the surgical site and recurrent laryngeal nerve palsy.[8,11,12]

Our patient developed persistent foreign body sensation and sore throat with some dysphagia two months after the operation. A barium swallow showed a good flow of barium into the oesophagus even though there was a small residual pouch. Interestingly, oesophagoscopy showed a clump of staples in the cricopharynx, which was removed and the patient improved symptomatically. We have reviewed the English literature and this has never been reported previously. Reports of migration of clips inside the tissues have been reported following other surgical procedures, such as laparoscopic cholecystectomy, producing complications.[13]

This case highlights the importance of bearing in mind the rare possibility of staples causing a foreign body sensation and odynophagia following endoscopic stapling of pharygneal pouch. Such patients should undergo repeat endoscopic examination. Barium swallow examination is of little value.

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