

Pharyngeal Diverticulum After Total Laryngectomy

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Summary: The pharyngeal stenosis is the most frequent cause of dysphagia after total laryngectomy. Pharyngeal diverticulum have been rarely reported in the literature. The authors describe a case of a 65 years-old male who underwent a total laryngectomy and left radical neck dissection followed by postoperative irradiation. After surgery he remained with total dysphagia. An esophagram showed a diverticulum at the level of the junction of the pharynx and the cervical esophagus. The surgical treatment included resection of the diverticulum and section of a fibrotic band. The postoperative course was uneventful. The patient remains asymptomatic for 10 months.

Introduction

Post laryngectomy dysphagia due to pharyngeal diverticulum is an infrequent complication. The differential diagnosis include recurrent neoplasm, stenosis and neuromuscular disfunction. There are few reports in the literature on a vallecular pseudodiverticulum, probably caused by dehiscence of the mucosal suture at the junction of the base of the tongue with the pharynx. Posterior pharyngeal diverticulum has never been reported previously as a complication of total laryngectomy. This report describe a case of a posterior true diverticulum of the hypopharynx requiring surgical repair.

Case Report

A 65 years old male presented progressive hoarseness for three months. A transglottic squamous cell carcinoma was diagnosed and a total laryngectomy with left radical neck dissection was performed on October, 1990. The pathologic report showed squamous cell carcinoma with uninvolved surgical margins. Postoperative irradiation was indicated. The patient remained with total dysphagia, being impossible to remove the nasogastric tube. He experienced 16 kg weight loss for the following 16 months. Endoscopic dilatation was performed without relief of the dysphagia. An esophagram diagnosed a posterior pharyngeal diverticulum on March, 1992. (Figure 1).

In April, 1992 the surgical repair was performed through a transverse cervical incision. An horizontal band of scar and a large retropharyngeal diverticulum were identified. The area of fibrosis was sectioned and the diverticulum opened (Figure 2). The excess of mucosa was excised and the pharynx closed primarily. There was no postoperative complication and the patient was discharged on the 7 th postoperative day. The patient achieved complete relief of the symptoms. A postoperative esophagram failed to show any evidence of stenosis, fistula or pharyngeal diverticulum. There was a huge epiphrenic diverticulum (Figure 3a and 3b). The patient has been followed for 9 months without any evidence of tumor recurrence or dysphagia. The epiphrenic diverticulum is completely asymptomatic.

Discussion

Dysphagia after laryngectomy is not an uncommon symptom and may be caused by a recurrent neoplasm, stenosis or neuromuscular disfunction^(1,3). If the patient presents with difficulty clearing the pharynx during and after the swallow and specially if it is associated with regurgitation of undigested material, a pharyngeal diverticulum must be considered in the differential diagnosis.

Kirchner and Scatliff in 1962⁽²⁾ first described this complication in 12 cases. In 1980 Gacek⁽⁴⁾ described 2 patients with symptomatic pharyngeal diverticulum, and in 1990 Sobol⁽⁵⁾ reported the clinical presentation and treatment of 3 further cases. All these publications were on vallecular diverticulum, probably due to mucosal dehiscence associated to a pharyngocutaneous fistula or not. In the present case the diverticulum was sited at the posterior

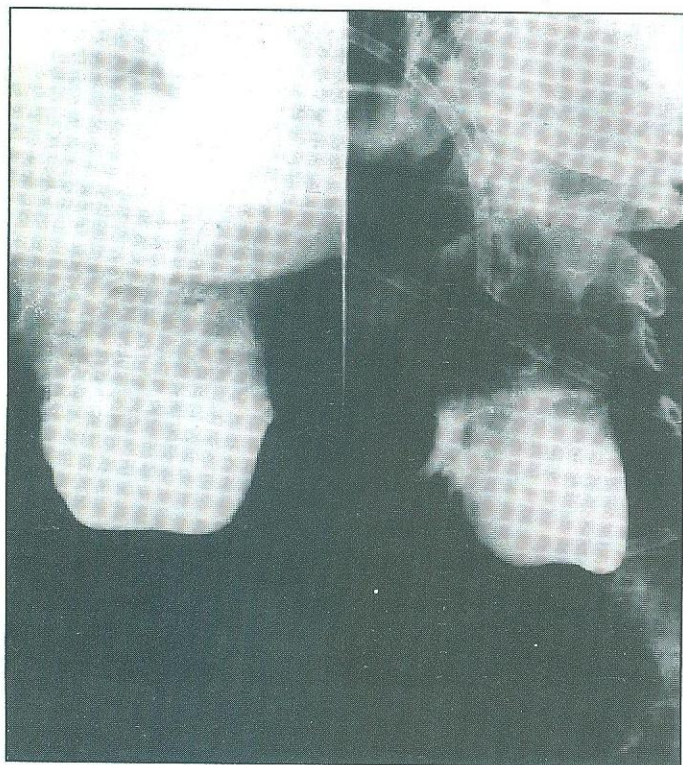


Fig. 1. Preoperative Esophagram showing a huge pharyngeal diverticulum.



Fig. 2. Intraoperative view of the esophagus and pharyngeal diverticulum.

pharyngeal wall. The physiopathology was considered similar to the the Zenker diverticulum. The increased pressure at the level of cricopharyngeal muscle was due to a fibrotic band that determine the herniation of the above pharyngeal wall. So it is a true diverticulum, whereas Zenker diverticulum is a pseudodiverticulum.

The treatment of pharyngeal diverticulum can be carried out by endoscopic or surgical approaches. The endoscopic treatment consists in the internal excision of the partition⁽⁵⁾ between the diverticulum and the cervical esophagus. The surgical approach involves the section of the fibrotic band around the pharynx and excision of the excess of mucosa. It seems to be a very simple and effective method for the correction of this infrequent complication after total laryngectomy.

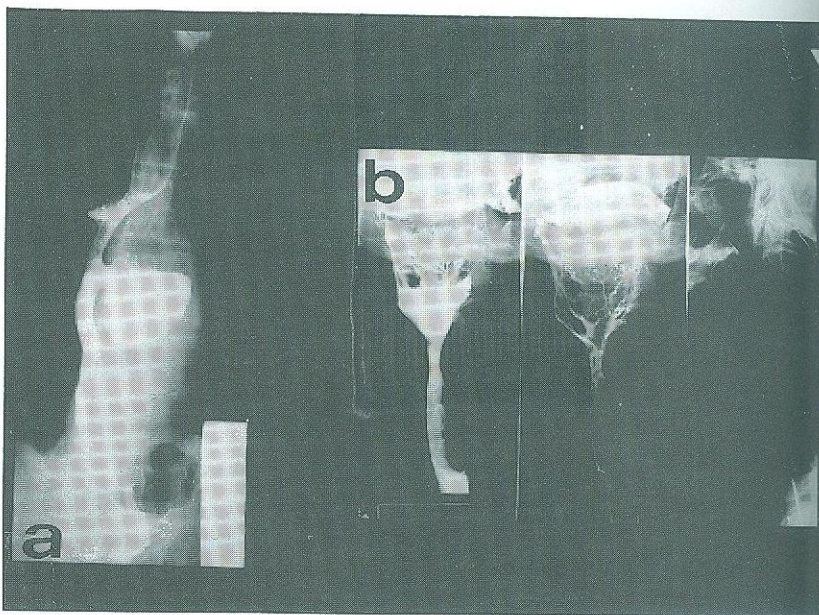


Fig.3. Postoperative Esophagram. A) Epiphrenic diverticulum; B) Pharyngo-esophageal junction without evidence of stenosis or diverticulum.

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