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Case Report

Total Pharyngectomy and Gastric Pull-Up Reconstruction with Laryngeal Preservation

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Abstract

In patients with head and neck cancer, dysphagia may be primarily sourced from invasion or extension of the mass or following surgical therapeutic intervention for removing tumor. With respect to the origin of dysphagia, it can occur following the extension of malignancies in the head and neck region. Herein, we describe a case with a primary compliant of dysphagia alone with the final diagnosis of primary retropharyngeal squamous cell carcinoma that was successfully managed by surgical intervention. In total, in our case study we can be concluded that if the examinations, imaging and examinations during the operation show that the retropharyngeal mass did not involve the larynx and posterior cricoid cartilage, we will be able to preserve the larynx during the operation. So, it can recovery the major symptom (dysphagia) as well as preserve faction of larynx, voice and ability to oral nutrition.

Keywords: Total Pharyngectomy; Gastric Pull-Up; Larynx; Tracheostomy; Posterior Cricoid Cartilage

Introduction

The incidence of dysphagia is usually accompanied by other symptoms such as odynophagia, hoarseness, regurgitation, heartburn and even losing weight can be associated with a variety of benign and malignant gastrointestinal and even pulmonary disorders. In head and neck cancer patients, this phenomenon may be primarily sourced from invasion or extension of the mass or following surgical therapeutic intervention for removing tumor [1]. In this regard, the severity of dysphagia is dependent on lesion-related characteristics such as size and location of the lesion, the nature of reconstruction, the extent and degree of surgical resection. In a recent systematic review, the main cancer-related factors triggering the occurrence of dysphagia were shown to be direct impact of the tumor, cancer resection, chemotherapy, and radiotherapy and to newer therapies such as epidermal growth factor receptor inhibitors [2]. With respect to the origin of dysphagia, it can occur following the extension of malignancies in the head and neck region, particularly pharyngeal, tongue, and esophageal cancers and less commonly from lung cancer, metastatic breast cancer, or thyroid cancer [3-5]. However, other head and neck cancers have rarely been identified as the origin of the tumor. Herein, we describe a case with a primary compliant of dysphagia alone with the final diagnosis of primary retropharyngeal squamous cell carcinoma.

Case Report

The case described was a 78-year old man suffering from dysphagia to both liquids and solids from two months before hospitalization without complaints from aspiration, odynophagia, or hoarseness. The patient was nonsmoker. According to the occurrence of dysphagia alone without evidences of gastrointestinal or pulmonary involvements as the causes for this manifestation, the patient was candidate for stroboscopy revealing a mass on the back of the arytenoids. For the purpose of further evaluation, direct laryngoscopy and esophagoscopy was scheduled that found a retropharyngeal bleeding and keratotic mass with the extension to esophagus up to the border of the endoscope 2 cm below the bougie (Figure 1). In assessment by laryngoscopy, the larynx and vocal cord movements were normal and no lesion was found in favor of cervical lymphadenopathy. In pathological assessment by biopsy, it was shown a tumor with the size of 3.5 × 3.5 × 2.0 cm with the definitive diagnosis of moderate-differentiated invasive squamous cell carcinoma with submucosal invasion but free of thyroidal, esophageal or lymphovascular invasion. The patient was thus can-

didate for total esophagectomy and pyloromyotomy (gastric pull up) with preservation of the larynx, with right thyroid lobectomy, tracheostomy and jejunostomy. In surgical resection, a retropharyngeal tumor with extension to inlet of esophagus was found. At the time of operation, aprone incision and first of all an elective neck dissection was planned. Then, bilateral lymph nodes were dissected and explored and then one side lobectomy of thyroid. Recurrent Laryngeal nerve was preserved and laryngeal framework was released with dissection of pharyngeal muscles and skeletonized hyoid bone for resection of tumor (Figure 2). Then, the surgeon entered to the pharynx from right lateral pharyngeal wall and dissected the pharynx totally (Figure 3). posterior cricoid cartilage wasn't involved, so we were able to preserved the larynx. Then, esophagus was released and pharynx and esophagus were totally resected and the gastric stripe pulled with the short gastric A and the anterior portion of stomach was sutured and sealed all of the surrounding mucosa. In final, tracheostomy and jejunostomy were considered. After 14 days, the results of operation were assessed by barium swallow and PO Liquid diet was started. After a month, the tracheostomy site was closed. The patient did not have a speech disorder, had a slight aspiration that completely resolved after 6 months, and the laryngeal function returned to normal (Figure 4). In the 6-month follow-up, the patient was able to eat soft diet. In the 8-month follow-up, no evidence of recurrence was observed in patient and there was no any complication. furthermore, the patient does not have a tracheostomy.

Figure 1: Showing computed tomography of retropharyngeal mass.

Figure 2: Showing intraoperative picture.

Figure 3: Showing intraoperative picture.

Figure 4: 6 month after surgery laryngeal view.

Discussion and Conclusion

The retropharyngeal region especially its related lymph nodes is metastatically invaded by other cancers. Although, the rate of metastatic lesions following nasopharyngeal carcinoma in this region is high, the rate of metastatic events in retropharyngeal region is rare in the head and neck cancers from other sites. In other words, retropharyngeal metastatic nodes from an unknown primary site in the head and neck were rarely reported. Retropharyngeal metastatic undifferentiated squamous cell carcinoma from an unknown primary site could be considered as a particular type [6,7]. Rate of retropharyngeal lymph node metastasis originated from oropharyngeal cancer was reported to be 13% to 16% [8,9]. Yoshimoto., *et al*. [10] reported two patients with retropharyngeal metastases at the time of diagnosis and two more developed recurrent cancer in the this region in patients with base of tongue cancer that 3 out of 4 patients had a tumor extending to the lateral pharyngeal wall. In the present report, we described a case of retropharyngeal tumor with unknown origin that was manifested only with dysphagia. In other word, it seems that in the cases of progressive dysphagia along without other local symptoms, the diagnosis of retropharyngeal squamous cell carcinoma cancer must always keep in mind.

In spite of the initial confusion in the diagnosis of malignancy in our case, it was quite recovered by the surgical protocols of total esophagectomy and pyloromyotomy with preservation of the larynx followed by with right thyroid lobectomy, tracheostomy and jejunostomy without any serious postoperative complication. The treatment option for the metastatic lesions in this area is surgery alone or combined with radiotherapy to the involved neck [11]. However, it seems that the outcome of surgery may be affected by different prognostic factors such as types of histology, positions of metastatic nodes, and operability of the disease. In this regard, moderately differentiated squamous cell carcinoma can be appropriately managed by surgical protocol alone without requiring radiotherapy [11].

In total, in our case study we can be concluded that if the examinations, imaging and examinations during the operation show that the retropharyngeal mass did not involve the larynx and posterior cricoid cartilage, we will be able to preserve the larynx during the operation. So, it can recovery the major symptom (dysphagia) as well as preserve faction of larynx, voice and ability to oral nutrition.

Conflict of Interest

We have no conflict of interest.

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