Saccular Cyst as a Complication of Medialization Laryngoplasty

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This case report and literature review presents a case of patient with previous history of laryngeal saccular cyst thought to arise secondary to a medialization laryngoplasty silastic implant. This patient was managed with endoscopic-dean extraction successfully without the need for a tracheostomy. A review of the patient’s exam preoperatively and postoperatively, the preoperative radiographs, and intraoperative photos will be reviewed.

PATIENT PRESENTATION

A 54 year old female presented to our clinic with complaints of five-year progressive hoarseness. She had been noted to be hoarse on multiple occasions at outside hospitals, the first in 2000 and the most recent in 2017. The patient’s hoarseness improved in the time between these occurrences. Examination showed a hoarse voice and a small midline subglottic structure, which was noted to be immobile, with a straight edge in a midline position that allowed for easy view of the subglottic area. Though the cyst was not visible, it was felt to be present on endoscopy, and it was not considered to be a subglottic lesion. One possible explanation for her hoarseness was the presence of a saccular cyst. Other potential causes considered include vocal polyps, vocal nodules, and Reinke’s edema. She was referred for a computed tomography (CT) scan of the neck.

CONCLUSION

1. To discuss etiology and classification of laryngeal saccular cysts.
2. To present a case report of a patient with laryngeal saccular cyst thought to represent a novel complication of previous surgical intervention.

RESULTS

A CT scan of the neck was obtained with the patient in the supine position. The scan showed a well-marginated cystic lesion measuring 2 cm that filled the right-sided laryngeal airway just above the level of the true vocal folds. A 4 mm raspatory biopsy of the cyst was obtained and sent for pathology. The patient was referred to Loyola for a second opinion regarding the nature of the cyst. The patient was informed that the cyst may represent a saccular cyst, and she was given the option to undergo endoscopic extraction of the cyst. The patient elected to undergo endoscopic extraction and was scheduled for surgery.

SURGICAL TREATMENT

Suspension microlaryngoscopy was performed under general anesthesia with the goal of removing the saccular cyst while preserving the vocal cord. It was thought necessary to limit exposure of the implant as possible in order to reduce risk of infection of this foreign body. During surgery exposure was obtained with a universal modular glottiscope (Endocraft LLC, Boston, MA), and both a telescope and an operating microscope with a 400-mm lens were used to view the larynx. The cyst was noted to be the filling the ventricle but no other lesions were seen. In order to expose the cyst, the overlying medial aspect of the right vocal cord was removed with a fine transoral CO2 laser (Diomedica, Cambridge, MA). The vocal cord was then examined under direct visualization. The cyst was not seen at its base, and the implant could be easily palpated along its deep border. The thin layer of the lateral portion of the cyst wall itself fell intact as to not expose the implant. The patient was extubated without complications.

RADIOPHOTOS

A CT scan of the neck was ordered to assess the relationship between the cyst and the underlying implant silastic. Axial images revealed a well-marginated cystic lesion measuring 2 cm that filled the right-sided laryngeal airway just above the level of the true vocal folds. A saccular implant is noted in the right paraglottic space, and the cyst lesion sits on its deep surface. The bulk of the silastic implant itself seems to sit just superior to the level of the left vocal fold.

INTRODUCTION

Saccular cysts may be congenital or acquired. In adults, common causes include trauma, neoplasm, and infection. Most commonly, saccular cysts are encountered following anterior commissurotomy or thyroplasty as a complication of medialization laryngoplasty. The case presented here is a medialization laryngoplasty in which an implant compressed the laryngeal saccule and led to this complication.

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