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Surgical Management of Laryngocele: A Rare Case Report and Review of Literature

Prof. Dr Biplab Nath[1], Dr. Deepsikha Bhttacharjee[2], Dr. Bagdatta Paul[3]

[1]Professor and H.O.D, Otorhinolaryngology, Agartala Government Medical College
[2]Post Graduate Trainee, Otorhinolaryngology, Agartala Government Medical College
[3]Senior Resident, Otorhinolaryngology

ABSTRACT

Background: Laryngocele is a rare cystic dilatation of the laryngeal saccule that communicates with the laryngeal lumen.

Case Presentation: We report a case of a 60-year-old female presenting with right-sided neck swelling and throat discomfort for one year. Clinical examination revealed a compressible swelling that increased on Valsalva maneuver. Radiological evaluation with CT, MRI, and ultrasonography confirmed the diagnosis of laryngocele. The patient underwent complete surgical excision via external approach with an uneventful recovery.

Conclusion: Laryngocele is an uncommon cause of neck swelling. Clinical suspicion supported by imaging is essential for diagnosis. Surgical excision remains the definitive treatment.

Keywords: Laryngocele; External approach; Neck swelling; Laryngeal saccule

INTRODUCTION

Laryngocele is an abnormal air-filled dilatation of the laryngeal saccule that communicates with the laryngeal lumen [1]. It is a rare entity with an incidence of approximately 1 in 2.5 million individuals per year and shows a male predominance [2]. Clinically, it may be classified as internal, external, or mixed depending on its extent. Patients commonly present with hoarseness of voice, neck swelling, or airway symptoms. Enlargement on Valsalva maneuver is a characteristic feature. Imaging modalities such as CT and MRI are essential for confirmation of diagnosis [1].

CASE HISTORY

A 60-year-old female presented with swelling on the right side of the neck and throat discomfort for one year. Clinical Examination: Swelling approximately 5 × 4 cm; soft, non-tender, compressible; non-fluctuant, non-transilluminant; increased in size on Valsalva manoeuvre.

Figure 1. Clinical photograph showing swelling on the right side of the neck .

Radiological Findings: CT scan showed a lesion measuring 6 × 3 × 4 cm compressing adjacent structures. MRI revealed a well-defined lesion in the right paraglottic space. Ultrasound showed fusiform dilation of the right paraglottic space.

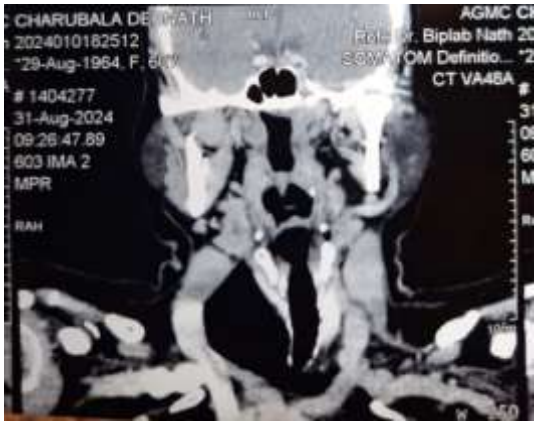

Figure 2. CT scan showing laryngocele.

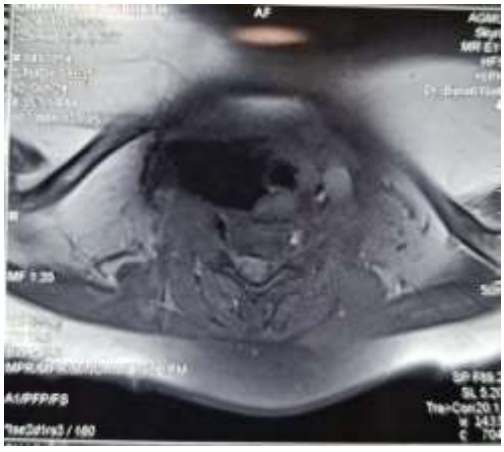

Figure 3. MRI showing lesion in right paraglottic space.

Surgical Management: Complete excision was performed via collar neck incision. The lesion was traced through the thyrohyoid membrane and was compressing adjacent vascular structures. Histopathology

findings were suggestive of pseudostratified ciliated columnar epithelium with underlying connective tissue.

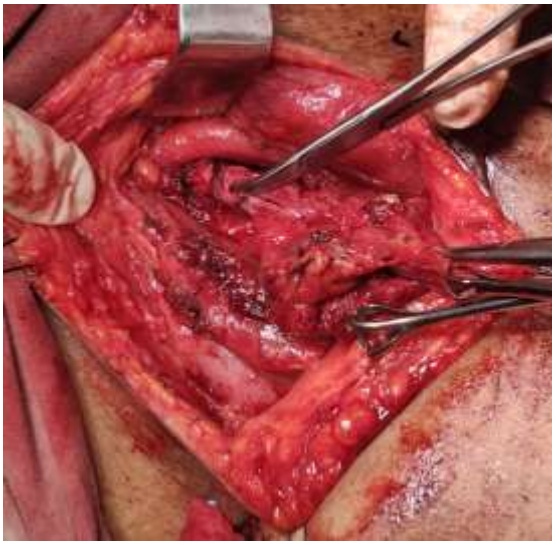

Figure 4. Intraoperative image showing laryngocele.

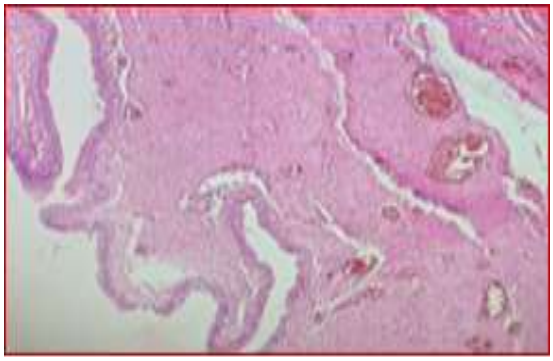

Figure 5. Histopathological image showing pseudostratified ciliated epithelium.

DISCUSSION

Laryngocele is a rare benign dilation of the laryngeal saccule that maintains communication with the laryngeal lumen. It may present as an air-filled (laryngocele), mucus-filled (laryngomucocele), or infected (laryngopyocele) lesion. The reported incidence is extremely low, approximately 1 in 2.5 million individuals per year, with a strong male predominance. Etiologically, laryngoceles are associated with increased intralaryngeal pressure, commonly seen in individuals such as wind instrument players or those with chronic cough. However, the present case is unusual as it occurred in a female patient without occupational predisposition. Clinically, it presents as a lateral neck swelling that increases on Valsalva maneuver. Imaging, especially CT, is crucial for diagnosis. Differential diagnoses include branchial cyst, cystic hygroma, and lymphadenopathy. Surgical excision remains the gold standard for symptomatic cases.

CONCLUSION

Laryngocele is a rare but important differential diagnosis for lateral neck swelling. A high index of suspicion and appropriate imaging are essential for diagnosis. Surgical excision provides excellent outcomes.

REFERENCES-

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