

Mixed Laryngocele

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The laryngocele is formed as a result of abnormal dilatation of the laryngeal ventricle. Congenital or acquired laryngocele is seen more frequently in males and during the 6th decade of life.^[1,2] Laryngocele is divided into three groups as internal, external and combined forms. Its etiology is still controversial and its frequency is increasing in glass blowing, singing, professional trumpet artists and heavy lifting athletes that may increase intraglottic pressure.^[3,4]

A 34-year-old male patient presented to our outpatient clinic with complaints of swelling on the left side of the neck for two years and deterioration in voice quality when he used his voice for a long time. During the patient's examination, on the left side of the neck, a semi-mobile mass measuring 3x4 cm with a soft consistency that did not show adherence to the skin and filling the 2nd and 3rd regions was observed (Fig. 1). On the left side, a presumably submucosal mass with a smooth surface, filling the piriform sinus, and pushing the left aryepiglottic fold medially was encountered during the an endoscopic examination of the larynx. In the voice analysis of the patient, a decrease in the intensity of the sound with a base frequency of 98 Hz (Fo), and a maximum phonation time of 10 seconds was detected.

In its Magnetic Resonance (MR) Imaging a 4x3cm cystic lesion with air density passing through the thyrohyoid membrane and extending to the band ventricle and ventricular region, and pushing the large vessels and sternocleidomastoid muscle towards anterior at the hyoid bone level on the left side of the neck were reported (Fig. 2). The patient underwent surgical treatment with an external lateral neck approach with an initial diagnosis of laryngocele. In the 18-month follow-up of the patient who had no complaints or relapses, the basic frequency (Fo) increased up to 150 Hz and the maximum phonation time increased to normal values, such as 16 sec.

Laryngoceles can alter the shape and size of the vocal airway by mass effect and prevent the filtering and resonance components of this pathway.^[5] Therefore, as in our case, a supraglottic laryngocele may have negative effects on the quality of sound by producing noise in the larynx, and on the contrary, hoarseness itself may cause laryngocele formation as in hyperfunctional voice disorder.^[3,6] In the cases reported on this subject, results of pre- and postoperative voice analysis showed that the basic frequency (Fo) increased and the maximum phonation time was prolonged, similar to the results found in our case.^[7,8]

Laryngocele is often unilateral and the mixed type is the most common type as in our case. The majority of patients are asymptomatic but present with dyspnea and dysphonia.^[2,7,8] Diagnosis is made with endoscopic examination of the larynx and radiological imaging modalities. As in our case, MR imaging has greatly assisted in the detailed evaluation of the lesion in the larynx. In MRI, the cystic mass with air density extending from the band ventricle to the perilaryngeal area by piercing the thyrohyoid membrane indicated the presence of a laryngocele.^[9]

In therapy, marsupialization, CO₂-laser or conventional approaches can be applied. In cases with external or mixed laryngoceles, recurrent or large-sized internal laryngoceles, the external lateral neck approach should be the first-line treatment.^[9] Injury of the vessels and nerves especially the superior laryngeal nerve, artery and vein in the paraglottic area is one of the most important complications of this surgery and we think that the external neck approach is superior to the endoscopic approach as it provides better visibility and minimizes this risk.^[5,10] Any disease recurrence was not observed

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Figure 1. Preoperative and postoperative clinical features of the patient with a laryngeal mass in the left neck (laryngocele).

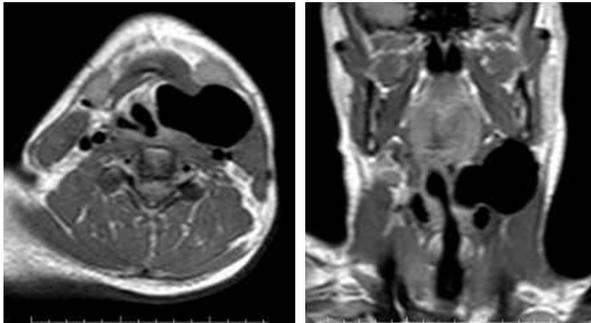


Figure 2. In axial and coronal contrasted sections of obtained in magnetic resonance imaging revealed a 4x3 cm lesion of air density extending from the thyrohyoid membrane to the band ventricle and ventricular region of the endolarynx with peduncles at the hyoid bone level on the left side of the neck.

during the 18-month follow-up of our case treated with the external neck approach.

In conclusion, neck mass is a finding frequently encountered during daily polyclinic examinations of physicians both in the surgical specialties as otorhinolaryngology and also in the specialties in the field of internal medicine. Recognition of this rarely encountered neck mass, such as laryngocele by raising awareness and orienting the patients for surgical treatment, is important for functional improvement in their voice and their esthetic appearance.

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Conflict of Interest

None declared.

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