

Bilateral Combined Laryngocoele with Recurrent Laryngeal Papillomatosis

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Introduction

Laryngocoele is a rare benign dilatation of the laryngeal saccule arising in the region of the laryngeal ventricle.¹ Laryngocoeles may present with hoarseness, dyspnoea or dysphagia depending on its size.² The precise aetiology is unknown. There are three types namely internal, external and combined also known as mixed.³

We report a case of bilateral combined laryngocoele with recurrent laryngeal papillomatosis.

Case presentation

A 32 year old male was referred by his local clinic after reporting a 20 year history of progressive hoarseness of voice and two masses bulging from his neck when speaking since the age of 14 years. There was no history of a chronic cough or playing an instrument that required blowing.

On examination, the patient had a hoarse voice accompanied by bilateral level 1 neck masses each time the patient when speaking.

On fibre-optic laryngoscopy, the anterior commissure had lesions that resembled laryngeal papillomas.

Direct laryngoscopy was performed with debulking of the masses, which were confirmed to be papillomas on histology.

The right laryngocoele sac was excised via an external approach. Papillomas were found to be obstructing the opening of the sac.

The left laryngocoele sac was subsequently excised. The opening of the sac was also found to be obstructed by papillomas.

Discussion

Laryngocoeles are air or fluid-filled dilations of the saccule of the laryngeal ventricle.

They are five times more commonly seen in men.^{4,5}

There are three theories with regards to the aetiology of laryngocoeles currently: congenital factors, increased laryngeal pressure and mechanical obstruction.⁶

Three types of laryngocoeles have been described:⁷⁻⁹

Internal laryngocoele is confined to the interior of the larynx and extends to the false cords and aryepiglottic folds. On laryngoscopy, it is seen as a swelling of the supraglottis

External laryngocoeles are seen laterally in the neck through the opening of the thyrohyoid membrane and extend upwards between the false vocal cord and thyroid cartilage

Combined/mixed laryngocoele which makes up the majority of cases are a combination of both the internal and external laryngocoeles

Laryngocoeles may present with or without hoarseness of voice.¹⁰

Symptoms vary according to size and may include cough, dysphagia, inspiratory stridor, compressible neck mass or asymptomatic.¹¹

Diagnosis is based on the history, complete airway examination with a fibreoptic laryngoscope, CT scan of the soft tissues and rigid endoscopic evaluation under general anaesthesia.¹² On CT laryngocoeles are presented as a thin walled or air filled cystic lesion communicating with the laryngeal lumen.¹³

Micro-laryngoscopy with the use of a CO₂ laser is the main treatment for external laryngocoeles

The external approach is the main treatment for external laryngocoeles.⁶

Conclusion

In this case laryngocoeles occurred in conjunction with laryngeal papillomas which caused obstruction of the laryngeal saccule by entrapping air creating an environment favourable for the formation of a laryngocoele.

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