



AN UNUSUAL CASE OF A VENTRICULAR FOLD POLYP

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ABSTRACT

The occurrence of ventricular fold polyps is extremely rare. Till date, there is very little documented evidence regarding its incidence, etiopathology and management. This calls for a detailed examination and evaluation of the larynx in the form of stroboscopy, especially when one presents with symptoms mimicking those of a true vocal fold polyp. Precise microlaryngeal surgical excision yields satisfactory results. Conservative management has no role in the treatment of ventricular fold polyps. Similarly, voice therapy may provide the patient with coping strategies, preventive advice and help ease symptoms, but it is unlikely to result in the resolution of the symptoms. Thus, one should always be vigilant while searching for pathologies in a patient with normal true vocal cords. With this information, we aim to report a case of ventricular fold polyps whose presentation was similar to that of a true vocal fold polyp.

KEYWORDS

“Ventricular fold”, “vocal fold polyp”, “microlaryngeal surgery”

INTRODUCTION

Disorders of voice comprise an important category of problems faced by a laryngologist. The treatment of these disorders has a huge influence on the vocational, social, and emotional lifestyle of the patient. About 1.5% of the overall population suffers from hoarseness of voice; the most common cause being vocal fold nodules and polyps(Thompson, n.d.).

A true vocal fold polyp is a benign swelling greater than 3 mm that arises from the free edge of the vocal fold(Julian, 2018). Usually solitary, it can occasionally affect both the vocal cords(Julian, 2018). Apart from the vocal folds, polyps can affect the aryepiglottic folds, ventricular space, and/or the Reinke's space(Thompson, n.d.). The ventricular folds are thick folds of mucous membrane scaffolded on a narrow band of fibrous tissue, the vestibular ligament(Nimesh & Shane, 2019).

The occurrence of a polyp over the ventricular fold is known as ventricular fold polyp. Currently there is very little documented information available on its incidence, pathophysiology and treatment. Thus, we aim to report such a finding whose presentation was similar to that of a true vocal fold polyp.

CASE REPORT

A 31 years old male, presented with the complain of change of voice for 5 months. He complained that his voice was hoarse, there was no alteration in his pitch but he felt a strain on speaking. He worked as the manager in a diamond factory. The job required him to work for 8 hours per day for 5 days every week and required him to manage 10-15 workers under him.

There was no history of difficulty in breathing, pain, difficulty in swallowing or any neck swelling. There was no history of trauma, smoking or alcohol consumption. There were no complaints of epigastric pain, burning sensation or foreign body sensation in throat.

On detailed examination, oral cavity, oropharynx and hypopharynx was found to be normal. No gross abnormality was found on neck palpation. Indirect laryngoscopic examination was not conclusive as the patient had elongated and overhanging epiglottis, but there was no pooling of saliva in the hypopharynx/supraglottis. Patient was posted for stroboscopy which revealed a hemorrhagic polyp over the right false vocal cord. Both true vocal cords appeared normal with a normal mucosal wave pattern. Chest Xray was normal.

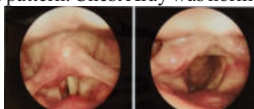


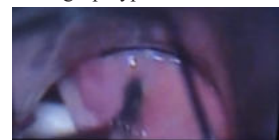
Image 1: The stroboscopic image showing a hemorrhagic polyp over the free edge of the right false vocal cord. The underlying true vocal cords appears normal.

The patient was advised conservative medical therapy in the form of proton pump inhibitors for 5 days and called for re-evaluation. After 5 days, there was no improvement in his voice and the stroboscopic findings were the same as the previous visit. Patient was counselled for micro-laryngeal surgery under general anaesthesia. He was subsequently taken up for micro-laryngeal surgical excision under general anaesthesia using cold steel instruments and a suspension micro-laryngoscope.



Image 2: Suspension micro-laryngoscope

Intra-operatively, after placing the micro-laryngoscope in position, both the vocal cords were inspected and palpated. Both the true vocal cords were found to be completely normal. A red, sessile haemorrhagic polyp was found at the junction of the anterior 1/3rd and posterior 2/3rd of the right ventricular fold. This mass was excised from its base. It was sent for histopathological examination which confirmed the diagnosis of a haemorrhagic polyp.



(Image 3A)



(Image 3B)

Image 3A: The pre-operative image showing the presence of a polyp over the right false vocal cord. Image 3B shows the right false vocal cord completely normal after excision of the mass.

The patient was discharged after 48 hours of observation. In his subsequent follow-up, he was advised voice therapy to learn the proper technique of voice production and thus prevent recurrence.

DISCUSSION

The exact cause of polyp formation is not known, but most authors

agree that phono-trauma is an important aetiological factor (Julian, 2018). Other irritating processes, however, may contribute to the emergence of polyps, such as gastroesophageal reflux, smoking, aspiration of aggressive chemical substances, or intense respiratory activities (De Vasconcelos et al., 2019).

There is a higher prevalence of hemorrhagic vocal polyps in men (69.0%; mean age of 48.3 years old) than in women (31.0%; mean age of 39.6 years old) (Klein et al., 2009). Studies report that mechanical strain generated during the characteristic production of low-pitched sounds in men causes the rupture of blood vessels and hemorrhage, predisposing them to vocal polyps (Zhukhovitskaya et al., 2015). The patient may complain that the voice is hoarse, has lowered in pitch and cuts out in speech, that they have lost part of the range of the voice and that it is a strain to speak (Julian, 2018).

Ventricular folds usually do not play a part in voice production. Whenever, there is any pathology on the true vocal cords, it is hypothesized that in these cases the resulting disordered vibration and stiffness of the vocal fold makes it more likely to damage the other structures causing localized trauma and polyp formation (Julian, 2018). False vocal cord pathologies are very rare and we could not find much studies or case reports on the same. This patient had use of non-professional voice abuse which might have led to over functioning of false vocal cords and so the polyp on it. Being a rare event, we have tried to publish the same.

CONCLUSION

Ventricular fold polyps being extremely rare, calls for a detailed examination and evaluation of the larynx in the form of stroboscopy. Precise microlaryngeal surgical excision yields satisfactory results. Conservative management has no role to play in the treatment of ventricular fold polyps. Similarly, voice therapy may provide the patient with coping strategies, preventive advice and help ease symptoms, but it is unlikely to result in the resolution of the symptoms. Thus, one should always be vigilant while searching for pathologies in a patient with normal true vocal cords.

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