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UNUSUAL LESION IN VOCAL CORD

Pathology

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ABSTRACT

Background: Hemangioma is a benign tumor and present in any part of the body. Vocal cord hemangioma in adults is very rare. The signs and symptoms of infantile hemangioma are different from adult hemangioma. The site of lesion is also not similar in both age groups.
Case report: We are reporting a case of left Vocal Cord hemangioma in the supraglottis causing hoarseness in a 29-year-old female, who was treated successfully with micro laryngeal surgery.
Conclusion: Vocal cord hemangioma can be one of the causes of hoarseness which can be successfully treated by excision.

KEYWORDS

vocal cord, hemangioma, adult, histopathological examination

INTRODUCTION

Hemangiomas are benign tumors of an unknown etiology that arise from vascular tissues and are mostly seen in the head and neck region.[1].In this region, hemangiomas are usually seen in the parotid gland, tongue and larynx in children. Hemangiomas of the larynx are classified into adult and infantile forms[1,2]. It is rare in adults [2]. The incidence of laryngeal hemangioma in infants is 4-5%, however, the incidence in adults is unknown due to the scarcity of case reports[3] The tumor is self-limited and resolves in approximately half of the pediatric patients by 5 year of age and resolves further with age. In contrast, adult hemangiomas do not regress spontaneously[4]. Infantile hemangiomas are more frequent in girls and occur usually in the subglottic region but in adults, they are more frequent in males and often occur in supraglottic and glottic regions[5,6]. Clinical symptoms differ due to the location of the lesion; hoarseness, dysphagia, dysphonia and shortness of breath are the most common symptoms in adults, whereas fluctuating respiratory distress and stridor are the main symptoms in infantile hemangiomas[7]. We are presenting a case of a left vocal cord hemangioma in an adult female who was treated surgically without any complications.

Case Report

A 29-year-old female, who is a college student attended the ENT outpatient department with chief complaints of hoarseness for the past 6 months. She is in the habit of reading aloud. Continuous talking and delivering lectures and seminars is a part of her occupation. She had no history of any preceding infection, past intubation, trauma, smoking, or alcohol consumption. There was no dysphagia, odynophagia, choking, oral bleeding, hemoptysis, lump sensation, or dyspnea. Past medical history showed nothing significant. Routine blood examination, blood sugar, urea, and liver function test were within normal limits.

Fiber optic laryngoscopy revealed a hemorrhagic polypoidal lesion with a smooth mucosal surface, wide base and a red-purplish color at the anterior one-third of the medial contact surface on the left vocal cord. [Fig. 1]

Direct laryngoscopy was performed under general anesthesia, the polypoid lesion was removed by micro-laryngoscopic technique. The surgical intervention was uneventful.

The specimen was submitted to the Pathology department. The biopsy material was red-colored tissue fragments, the largest one with a 1 cm maximum diameter. Histopathological examination revealed the lesion to be a cavernous hemangioma. The lesion was covered by stratified squamous epithelium and contains large thin-walled vessels that are lined with flattened endothelial cells within a loose fibrous stroma. It was devoid of mitotic activity and blood present in the vascular channels.

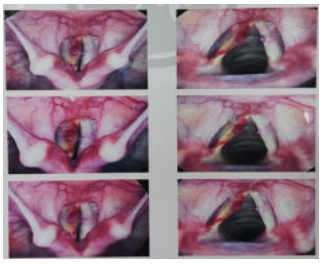

Fig 1 –(FOL Fiber optic Laryngoscopy) – Red-purplish polypoidal lesion at the anterior one-third of left vocal cord Vocal Cord Hemangioma.

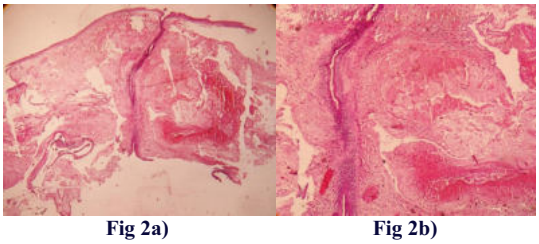

Fig 2a) **Fig 2b)**

Figure 2. Histopathologic image of Cavernous hemangioma : dialated, thin walled blood vessels, lined by flattened endothelial cells, with blood within their lumen, within a loose fibrous stroma. (Haematoxylin and eosin , (a) 100X (b) 400X).

The postoperative period was also uneventful and the patient was discharged on the 1st post-op day. Voice rest was advised for a fortnight followed by speech therapy thereafter if needed. The patient was kept on follow-up and now she is doing well.

DISCUSSION

The laryngeal hemangioma was first introduced by Mackenzie in 1871 [6]

The most common benign tumors of the larynx and vocal cords are papillomas(95%). Other uncommon tumors are oncocytic tumors, pleomorphic adenomas, lymphangiomas, neurofibromas, fibromatosis, paragangliomas and rhabdomyomas, and hemangioma. [7].

Laryngeal hemangioma in adults is a very rare condition that is generally seen in men. The causative factors are thought to be vocal abuse, cigarette smoking and laryngeal trauma (i.e intubation)[8]. In our case, the patient was a young female. She had no history of cigarette smoking and laryngeal trauma but she had a history of voice abuse. Adult hemangiomas occur at or above the level of true cord, most of the lesions being usually cavernous hemangiomas.

Vocal cord hemangioma usually arises from the free edge of the vocal cord[2]

In the present case, the hemangioma was located in the anterior third of the vocal cord. Kadir Cagdas Kazikdas et al described that the main symptom was hoarseness and rarely hemoptysis.[2]. Irizi et al also noted that hoarseness was the main symptom of vocal cord hemangioma[8] In our patient she complained of only hoarseness.

Computed tomography (CT) and magnetic resonance imaging (MRI) along with Laryngoscopy is a useful tool for determining the size, position, and other association of hemangioma [10]. In our case, only direct laryngoscopy was done.

Vocal cord hemangiomas can be divided into 3 types, cavernous, capillary, and mixed type [10].

The present case was a cavernous type.
No active treatment is advised for adult laryngeal hemangiomas unless the lesions are symptomatic or show a tendency to involve other parts. There is no well-established treatment protocol for laryngeal hemangiomas. The various modalities of therapy depend upon the age of the patient, the site and the size of the lesion and the hemodynamic flow of the hemangioma. Systemic steroids, intralesional steroid injection,.interferon cryosurgery, carbon dioxide laser ablation, surgical excision can be for treatment.[9] In the present case, hoarseness was a troublesome complaint so Microlaryngoscopy was carried out.

CONCLUSION

Adult laryngeal hemangiomas are rare and glottic origin is even rarer. They generally cause problems in the voice of the patients. Excision of the lesion with micro-laryngoscopic technique gives satisfactory results.

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