

Case report:

Cavernous hemangioma: A rare cause of hoarseness in adult

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Abstract:

In contrary to the infantile hemangioma, adult hemangioma differs in terms of its rarity, gender prevalence, location and presenting symptoms. We report a case of a 61-year-old gentleman with right vocal cord cavernous hemangioma who presented to us with the complaint of hoarseness for 6 months duration. Endoscopic laryngeal microsurgery and excision biopsy was performed and the mass was completely excised. Post operatively, the voice improved with no evidence of recurrence.

Keywords: Cavernous, hemangioma, adult, larynx, hoarseness.

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Introduction

In general, there are two forms of hemangiomas of the larynx, the infantile and adult hemangiomas¹. Infantile hemangiomas are more common when compared to adult type. The incidence of laryngeal hemangioma in infants is 4-5% but there is no known incidence if adult due to its rarity². Infantile hemangiomas are mostly present in the subglottic region and adult hemangiomas occur more often in the supraglottic region or the glottic region. Hence, presenting complaint of an infant and adult with this condition may differ.

Casereport

A 61-year-old man presented with complaint of hoarseness for 6 months duration. He also noticed streaks of bloodstained saliva for a week before his first visit. There was no complaint of odynophagia, dysphagia, or shortness of breath. Physical examination was unremarkable. Oral cavity and oropharynx examination were normal with no palpable neck node. Flexible nasopharyngolaryngoscopy (FNLPS) examination showed a pinkish multilobulated mass present

at anterior one-third of the right vocal cord, extending to the anterior commissure (Fig. 1). Biopsy of the mass was taken in the clinic under local anesthesia. Histopathological examination (HPE) of the biopsy result was reported as consistent with laryngeal nodule, with dysplasia which can be reactive or neoplastic.

Subsequently, he underwent endoscopic laryngeal microsurgery (ELMS) and excision biopsy of the mass under general anesthesia. The mass was excised with cold instruments. The intraoperative bleeding was arrested with the use of adrenaline packing and cauterization (Fig. 2). The patient was discharged home the next day. The patient recovered well postoperatively. The HPE result showed that right glottic mass and anterior commissure mass to be cavernous hemangioma, with no evidence of neoplasia (Fig. 3,4). There was no evidence of recurrence after 6 months post-surgery. The voice had improved and he denied any new symptoms such as stridor, noisy breathing or aspiration symptoms.

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Figure 1: The right vocal cord pinkish mass before the excision

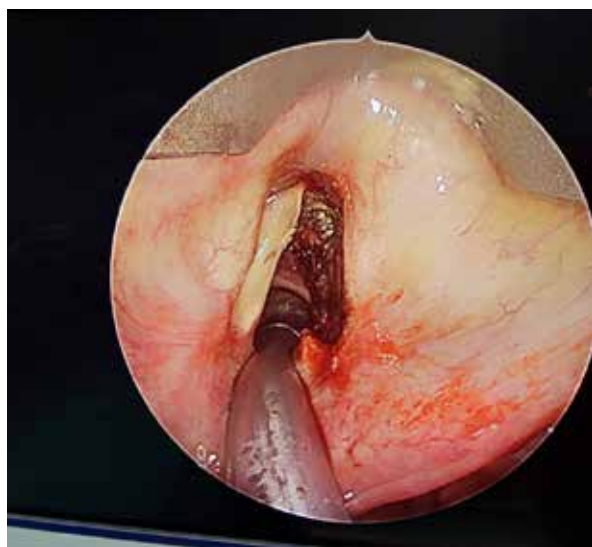


Figure 2: The right vocal cord post excision of the mass

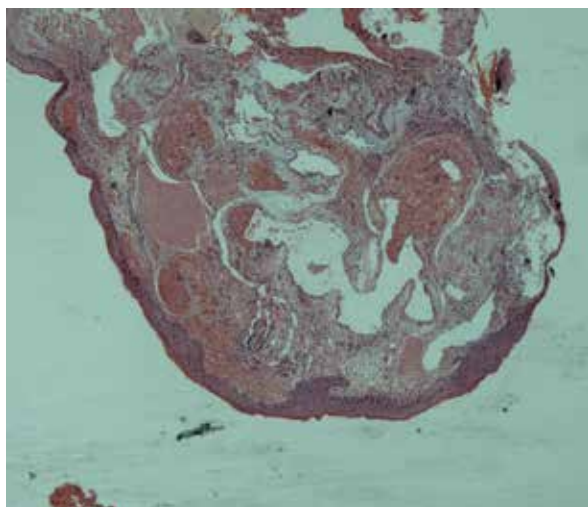


Figure 3: Proliferation of thin and thick-walled blood vessels filled with blood and fibrin thrombi (H&E x40)

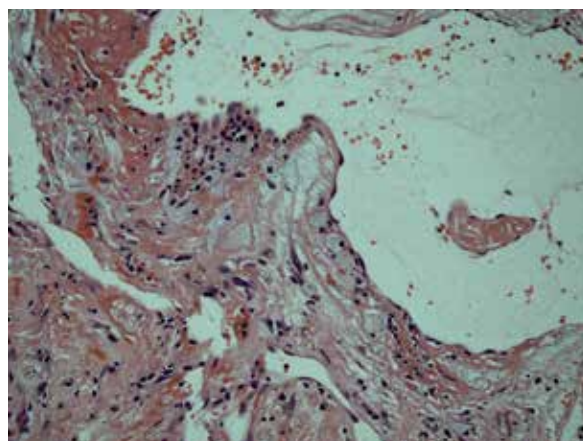


Figure 4: Benign, flattened endothelial cells lining the vascular spaces (H&E x 400)

Discussion

MacKenzie first described laryngeal hemangioma in the year 1871. But, only later in the year 1921, Sweetser differentiated the characteristics between the adult and infant hemangioma². Infantile hemangiomas are more prevalent amongst female. However, adult hemangiomas are more prevalent in the male population³. Among the factors that is thought to be causative factors include vocal abuse, cigarette smoking and laryngeal trauma such as in case of intubation^{2,3}. Our patient was a chronic smoker and there were no other identifiable risks. Because the infantile hemangioma presents commonly at the level of subglottic, the initial presentation would be respiratory depression and stridor¹. The adult hemangiomas are more commonly present at the level of supraglottic and vocal cord level and these patients would present with the complaint of hoarseness, dysphonia and more rarely shortness of breath or respiratory depression^{1,2}. Our patient presented as hoarseness and hemoptysis because his hemangioma was located at the anterior commissure of the vocal cords.

Laryngeal hemangiomas are diagnosed by presenting history, laryngeal examination, as well as HPE. During phonation, the growth increases in firmness, erection and deepen in color. This is known as the phonation sign of Menzel and this can be of diagnostic value^{1,2}.

The adult hemangiomas are usually of the cavernous form². These lesions are covered by a thin mucosa. They have irregular surfaces that appear pinkish blue in color¹. This type of hemangiomas differs from the capillary-type, because its vascular channels are less well circumscribed, larger and also deeper in submucosal tissue^{2,5}. This is also the

type of hemangioma of our patient.

There are no standard treatment plans for laryngeal cavernous hemangiomas. For this reason, the treatment should be customized for each patient. The factors that are taken into consideration before deciding on the modality include, patient's age, type, size and localization of the lesion^{4,5}. Infantile hemangiomas are expected to regress spontaneously without causing any significant discomfort⁵. On the contrary, adult hemangiomas, though they are not progressive tumors, do not show tendency for spontaneous regression⁵. Thus, small hemangiomas are managed conservatively. The various modalities that are available are systemic steroids, radiation, CO₂ laser excision, injection of corticosteroids, cryosurgery, microdebrider or excision using microlaryngoscopic method^{1-2,4}. For larger lesions, tracheostomy may be indicated^{1-2,5}. In our case, the hemangioma was relatively small in size and so the excision with microlaryngoscopic technique

using cold instruments has yield good results up to at least 6 months post operatively.

Conclusion

Vocal cord cavernous hemangiomas in adults are very rare and the most common presenting complaint in adults is hoarseness. Excision with microlaryngoscopic technique with cold instruments yielded good results up to at least 6 months. Even so, a longer clinical observation is required in case of recurrence.

Conflict of Interest

No conflict of interest has been disclosed by the authors.

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Authors Contributions

Conception and design: NK, IM, NHANH

Collection and assembly of data: NK, IM, LZH, NHANH, NDJ

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