Vocal Cord Hemangioma

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SUMMARY

Laryngeal hemangiomas are relatively rare. Laryngeal hemangiomas occur in two main forms – infantile and adult laryngeal hemangiomas. While infantile hemangiomas are usually found to occur in the subglottis, adult hemangiomas occur commonly in the supraglottic regions of the larynx. Laryngeal hemangioma with cavernous features isolated to the free edge of the vocal fold is a very rare clinical finding. We present a case of hemangioma of the right vocal cord in an adult, which was managed successfully in our center.

KEY WORDS:
Vocal cords, Hemangioma, Cavernous

CASE REPORT

A 35-year old female presented with hoarseness for six months and noisy respiration, especially on inspiration, for the past two months. A known asthmatic on treatment, she had no history of any preceding infection, past intubation, trauma or voice abuse. Indirect laryngoscopy revealed a pink fleshy mass on the right vocal cord at the junction of the anterior 1/3 and posterior 2/3 (Figure 1). Cord movements were normal. On videostroboscopic examination, the lesion appeared to be like a large hemorrhagic polyp. The passage to the larynx was free. The ary-epiglottic folds and false vocal cords were normal. Morgagni's ventricles were normal. The epiglottis had regular configuration and appropriate insertion. Other ENT findings were regular. A provisional diagnosis of a hemorrhagic vocal cord polyp was made. The patient was posted for microlaryngeal surgery under GA. Examination revealed a vascular, collapsible, pedunculated mass with the pedicle attached to the right vocal cord. The body of the mass was in the subglottis. The diagnosis was changed to vocal hemangioma. The stalk of the lesion was isolated and excision of the same was done with microscissors. The pedicle was easily dissected from the surface of the vocal ligament but the lesion was adherent to the overlying vocal fold mucosa. The minimal bleed that occurred was controlled with application of local pressure.

HPE revealed the lesion to be a cavernous hemangioma (Figure 2). The post-operative period was uneventful with prompt relief from respiratory embarrassment. Voice rest was advised for a fortnight followed by speech therapy thereafter. The patient had a normal voice after two months of speech therapy. A repeat videostroboscopy performed three months revealed complete glottic closure at conversational pitches. The patient is on follow-up and is free of disease.

DISCUSSION

Laryngeal hemangiomas can be classified as infantile and adult. Adult hemangiomas occur at or above the level of the true cord, most of these lesions being usually cavernous hemangiomas. Though the occurrences of supraglottic hemangiomas are relatively common in adults, the occurrences of vocal fold hemangiomas are very rare. Only five vocal cord hemangiomas have been described till date since the first one in 1995. A vascular lesion that may mimick a hemangioma may sometimes result from an organizing hematoma following a hemorrhage on the vocal cords due to voice abuse[1]. Laryngeal hemangiomas also need to be distinguished pathologically from polypoidal vascular granulation tissue that may be produced by laryngeal biopsy, intubation or trauma.

Adult hemangiomas are bluish red, clearly defined, appearing most often in the region of supraglottis and glottis. The principal symptom is hoarseness, occasional hemoptysis, and in advanced cases dysphagia and difficult breathing. No causative or pre-disposing factors have been convincingly enumerated. Though the malignant transformation of such tumors is very rare, there have been reports that suggest so[2]. Infantile hemangiomas occur as part of herido-familial conditions with 50% demonstrating hemangiomas in the skin and head and neck regions. Patients with cutaneous hemangioma located in a beard fashion (pre-auricular area, chin, anterior neck lower lip) also have symptomatic involvement of the airway. These lesions most commonly occur in the subglottis. Most are asymptomatic at birth and become symptomatic after six months of age, the chief complaint being dyspnoea and inspiratory stridor with obstruction signs and cough.

For adult hemangiomas, direct visualization by videostroboscopy remains the investigation of choice followed by examination under microscope. A neck X-ray PA view can help in identifying the narrowed segment of the larynx and subglottis in case of hemangiomas. 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 uniformly accepted treatment of head and neck hemangiomas. The various modalities of therapy are dependent upon the age of the patient, the site and size of the lesion, and the hemodynamic flow of the hemangioma. Systemic steroids intralesional steroid injection, laser ablation with both the carbon dioxide and Potassium Titanyl Phospate (KTP) lasers, interferon (IFN), microdebrider, cryosurgery and open surgical excision have all been utilized. Carbon dioxide laser is the mode of choice for excision of the hemangioma[4].

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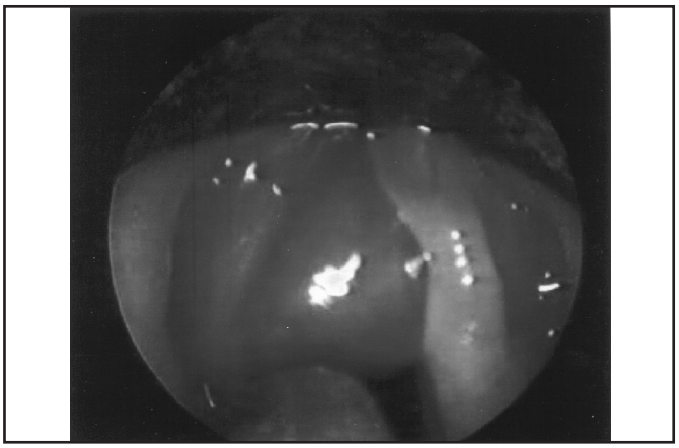

Fig. 1: Rigid endoscopic picture showing a hemangioma of the right vocal fold during microlaryngoscopy

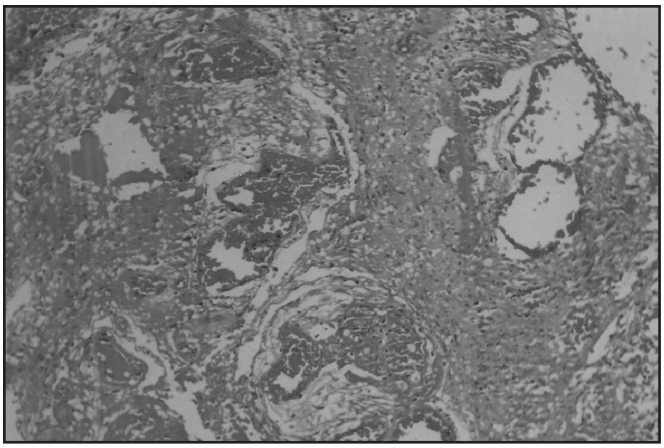

Fig. 2: Histopathological picture of the cavernous hemangioma of the larynx (X200). The lesion is made up of large, thin-walled vessels that are lined with flattened endothelial cells, which are devoid of mitotic activity.

Endolaryngeal excision, as was done in our case can also be successfully employed[5]. The other options that we also considered were more conservative procedures like intra-lesional injection of steroids with systemic steroid therapy and radiation. External therapy and intra-lesional implantation of radioactive gold seeds can be effective in symptomatic unresectable or partially resected hemangiomas but carry the risk of future development of malignancy if used in younger age groups. On the other hand, infantile hemangiomas that do not cause any symptoms show a tendency towards cessation of growth followed by slow regression of hemangiomas. Hence expectant treatment with maintenance of the patent airway is usually followed. Tracheotomy is typically necessary to secure the airway until the lesion spontaneously regresses, usually by age five years. Steroids, embolization, LASER and cryotherapy can be used later if and when necessary.

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