A case report of subglottic haemangioma
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Abstract : We report a case of 18 year old female who presented with hoarseness of voice and haemoptysis for 6 months eventually diagnosed as subglottic haemangioma through videolaryngoscopy, CT imaging and histopathological examination of excision biopsy. The tumour excision was done by endolaryngeal surgery with tracheostomy under general anaesthesia. The diagnosis of subglottic mass and its management and prognosis were discussed.

Keyword : haemangioma, subglottic capillary haemangioma, subglottic mass, haemoptysis, endolaryngeal surgery.

Fig 1.1
Case report
18 year old female presented to ENT OPD with complaints of change in voice and haemoptysis for 6 months duration. Voice change was insidious, progressive & hoarse with associated haemoptysis which was episodic 5-6 times, lesser amounts controlled on its own and no previous history of asthma, tuberculosis, heart disease and bleeding diathesis. Her physical examination revealed no pallor, normal vesicular breath sounds in all lung fields with no added crepitations or wheeze, no cutaneous lesions. Video laryngoscopy revealed small, reddish lobulated polypoidal pedunculated mass in subglottis on the right side suggestive of haemangioma. Plain 5 mm slice CT scan obviously skipped the lesions due to its small size. Laboratory test revealed normal values of haemoglobin, complete blood count, bleeding and coagulation tests and thyroid profile. Her chest x-ray and sputum AFB results are normal. Planned for endolaryngeal excision biopsy under general anaesthesia through tracheostomy. Under local anaesthesia tracheostomy was performed, the tracheal cartilage was preserved using superior based tracheal flap and sutured to subcutaneous tissue. General anaesthesia was given through tracheostomy, patient was placed in Boyce position, Jackson laryngoscope passed, fixed with chest suspension. 0 Hopkins rod was passed, mass visualised in the right side below the vocal cord, the size and extent was assessed. Local infiltration with 2% xylocaine with 1: 1, 00,000 adrenaline was given in the base of the tumour. Using a sickle knife mass was cut at the base near its attachment & removed into the tumour site was examined for any remnants, no residual tissue seen except minor ooze which is controlled with application of adrenaline soaked gauze and electrocautery. Laryngoscope was withdrawn, patient recovered well from general anaesthesia. Total procedure duration was 23 minutes.

Histopathology of specimen revealed stratified squamous lining epithelium with underlying proliferating capillaries with areas of haemorrhage suggestive of capillary haemangioma. Immediate post operative period was uneventful. Video laryngoscopy was done on 2nd post operative day, oedema seen at the tumour site and vocal cords movement were normal. Plastic cuffed tracheostomy tube was changed to metal tracheostomy tube. 10th post op day repeat video laryngoscopy was done vocal cords structure and movement were normal, subglottis was normal. Tracheostomy decannulation was done in operation theatre, superior based flap repositioned; the stoma wound was closed with subcuticular sutures. Post operative voice evaluation was normal. With tumour being removed and voice restored, the patient was managed successfully.

Discussion
Haemangioma is a common benign tumour of the head and neck in children which usually appears a few weeks after birth, grows more rapidly during infancy, and undergoes spontaneous slow involution later in childhood. There are several histologic and clinical variants: capillary haemangioma, cavernous
haemangioma, and pyogenic granuloma. Capillary haemangioma is the most common variant of haemangioma which occurs in the skin, subcutaneous tissues, and mucous membranes of the oral cavities and lips, as well as in internal viscera. Sweetser classified haemangioma of the airways into an infantile and an adult variety. The infantile type is usually in the subglottic airways, rarely involving subcricoid area and usually developed dyspnoea and stridor by three months. The adult types of hemangiomas are usually supraglottic, commonly involving the vocal cords. Hoarseness with little or no dyspnoea is the most common manifestation, and haemoptysis occurs frequently.

Fig 1.3
Hemoptysis in adults is more frequently caused by infection, inflammation, neoplasms or coagulopathy. The tumour size being smaller is most likely to be missed in the indirect laryngoscopy and CT imaging, proving videolaryngoscopy an essential tool in the diagnostic kit in laryngeal disorders. In case any tracheobronchial capillary haemangiomas, bronchoscopy may be required to confirm or refute the diagnosis. Based on the site and appearance, the most probable diagnosis would be haemangioma though papilloma, adenoma, adenoid cystic carcinoma and any benign lesions could be considered. Analysing the various anaesthetic methods for laryngeal surgeries such as supraglottic jet venturi needle, microlaryngeal tube and subglottic jet ventilation, we preferred tracheostomy as it hold the advantages of improved surgical access, management of haemorrhage, airway management in case post operative vocal fold oedema due to use of cautery and post operative voice rest. Case reports of adult airway subglottic/tracheobronchial haemangiomas in Indian literature are very limited though there are few reports in international journals.

Conclusion
There is no established management protocol for adult capillary haemangioma. Role of medical management in adult cases are not studied due rarity of presentation and it is easily amenable to surgical management. Although various modalities are available Laryngoscopy/bronchoscopy forceps excision gives better results with no recurrence even after one year follow up.

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