Case Report

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Innovative Approach to Lingual Base Lesions

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ABSTRACT

Visualization and resection, in toto or sampling of base tongue lesions involves either a "ceiling" or a "floor" intervention. The concerned area is not in a straight line of view, necessitating thereby either 45 or 70 degree angled telescopes with 45 or 90 degree angled punch trucut instrumentation. In addition a curved tongue retractor is needed to lift out the anterior part of the tongue. To obviate the need of one instrument, a curved blade intubation video laryngoscope can be utilized with ease. A massive base tongue hemispherical mass was excised using this innovative technique.

Keywords: *Base Tongue, Video Laryngoscope*

Introduction

Visualization of the tongue base can be difficult because of the angled trajectory and salivary secretions obscuring the view during assessment. Also, the biopsy specimens taken from this site can be non-diagnostic, mostly because of the tissue being too small or too superficial. The video laryngoscope gives a wide view of the base tongue and the ability to use sinus biopsy forceps, which can take larger and deeper specimens. [1,2]

Case Report

A 68 yr elderly male was admitted under head neck services with uneasiness at the back of the tongue for the last 6 months. There was no bleed per os nor any referred otalgia. A flexible fibroptic evaluation revealed a dome shaped pale mass extending to either pharyngoepiglottic folds. The vallecula and the median glossoepiglottic folds were free though the laryngeal inlet could not be discerned [Fig 1]. Contrast enhanced computed tomography axial, coronal and saggital views [Fig 2] delineated an oval mass at the base tongue area, in proximity to the lingual surface of the suprahyoid epiglottis. The naso -pharyngo-laryngo-tracheal airway could be well demarcated.

The naso-laryngeal intubation was deferred considering the site, size, shape and friability of the lesion. In lieu of an upper airway bypass, a tracheostomy was performed for inhalational general anaesthesia. Under video laryngoscopic guidance, illumination and blade tip camera, a 270 degree resection of the friable mass could be carried out [Fig 3]. The surgery could be seen under magnified vision on the table side video monitor with meticulous circumscribed dissection with the bipolar curved tip cutting coagulation blended mode. Tissue and blood spillage in the laryngeal inlet could be easily checked with this interventional modality. After the resection, laryngeal inlet could be seen to be free of the disease [Fig 4]. Tissue was sent for histopathological examination which was consistent with a lymphomatous malignancy. It revealed a cellular tumor with tumor cells arranged in sheets. The cells had pleomorphic vesicular nuclei, prominent nucleoli and scant to moderate amount of cytoplasm. Brisk mitosis was noted. Overlying stratified squamous epithelium showed orderly cell maturation. Foci of haemmorage and necrosis were also noted. The patient was thus referred for Radio-chemotherapy for further management.

Fig. 1: Pale dome shaped mass at base of tongue completely obscuring the laryngeal inlet.

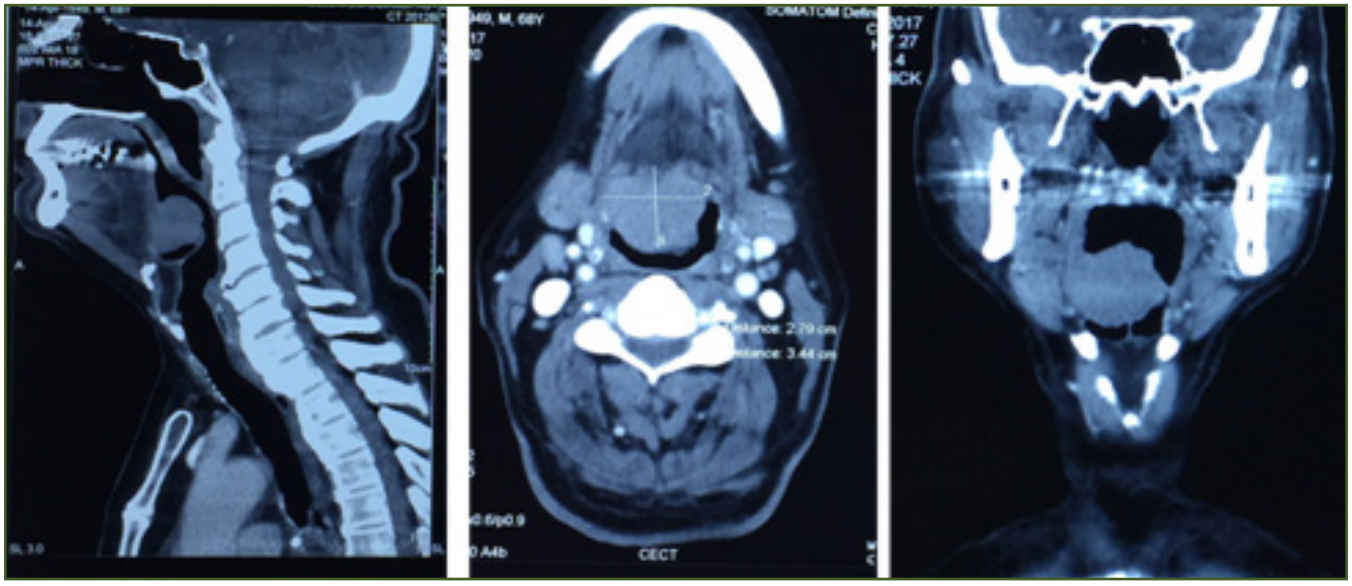

Fig. 2: Saggital, Axial and Coronal cuts showing oval mass at base of tongue.

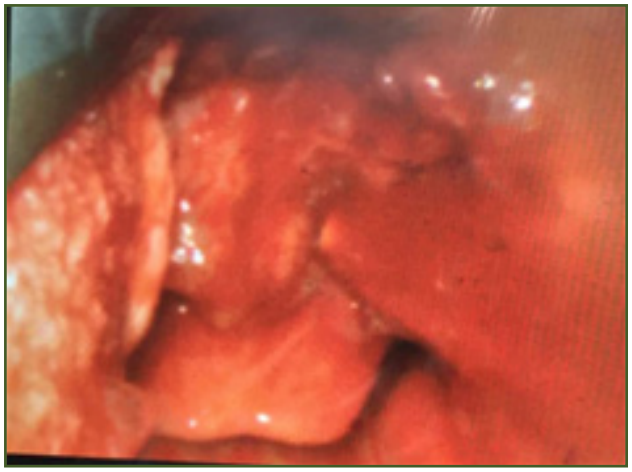

Fig. 3: Mass found to be fragile on resection.

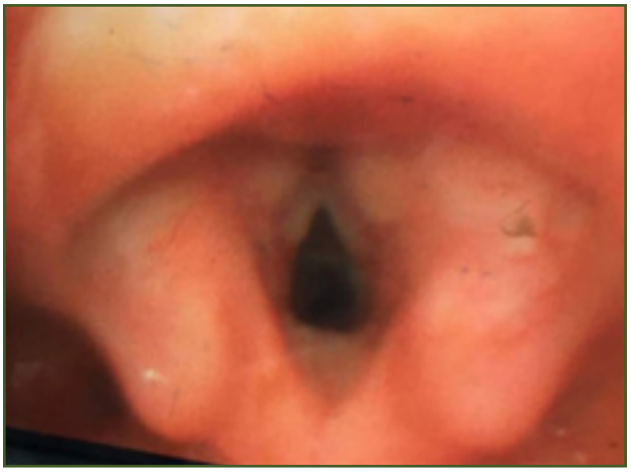

Fig. 4: Normal laryngeal inlet seen after resection.

Discussion

The base of the tongue is a subsite within the oropharynx. The circumvallate papilla and the posterior oral cavity are the anterosuperior boundary, inferoposteriorly are the vallecula and lingual surface of epiglottis, and laterally it is bounded by the glossoepiglottic folds. [3] Lesions of this area usually present as difficult or painful swallowing or a vague sensation of a lump in the throat. Some patients may complain of referred ear ache or hemoptysis. Diagnosis usually gets delayed because of the non specific nature of symptoms and the relative inaccessibility of the area to routine examination. Indirect or flexible fiberoptic laryngoscopy in the outdoor is a useful adjunct to the physical examination. [4]

A systematic approach is therefore recommended for diagnosing a posterior tongue mass, which can be neoplastic, infectious, or congenital. Differential diagnosis includes benign neoplastic lesions like leiomyoma, neurofibroma, and schwannoma; congenital lesions like lingual thyroid, thyroglossal duct cyst, dermoid and epidermoid cysts. [5]

Video laryngoscopes are an innovative option for examining the base of tongue as their curvature allows easy gliding along the tongue base. Also, a wider area can be visualized and the images can be seen on the monitor. They can be easily employed in morbidly obese patients or those who pose a difficulty in intubation. With the use of this laryngoscope, image guided biopsies can be taken from the lesion in appropriate depth and the blood and salivary secretions can be suctioned out thus preventing spill into the laryngeal inlet. [1,2]

Conclusion

Base tongue lesions of the magnitude as above have a differential of being the benign lingual tonsils, ectopic lingual thyroids, schwannomas or the malignant primary or metastatic carcinomas. Circumscribed and friable lesions that bleed on touch, like these are a rarity. They necessitate an "encirclement view" prior to any intervention; else they spill into the lower airway. The role of the video laryngoscope, from the armamentarium of the anesthetist colleague cannot be better appreciated than in the above surgical situation.

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