***Case study***

# Hemangioma of tongue with abrupt growth onset: A rare case report


## Abstract

Hemangiomas of the oral cavity are uncommon but have a predilection for the tongue. Although many lingual hemangomas are superficial, some lesions may involve deep tongue or even the majority of the tongue. They are considered hamartomas rather than true neoplasms. Here we report a case of haemangioma of the anterior 2/3rd of the tongue involving both ventral and dorsal aspects, and ascertaining the diagnostic evaluation and emphasizing the role of color Doppler ultrasonography and Contrast enhanced magnetic resonance imaging in unrevealing the diagnostic dilemia of the lesion, and further helping in deciding the level of the management.



KEY WORDS: CEMRI contrast enhanced Magnetic resonance imaging, AVM Arterio-venous malformation, CD color doppler.




## Introduction

Hemangioma is a common benign vascular neoplasm that closely resembles normal vessels. Oral cavity hemangiomas are relatively rare. Vascular lesions are classified as capillary,cavernous,venous and arteriovenous malformations depending on the predominant anomalous vascular channels. [1,2] Alternatively malformations can be categorized as either high flow (arteriovenous) or low flow (capillary, cavernous, venous) vascular lesions.[3] However low flow lesions can have mixed pathological features and manifest with similar patterns at magnetic resonance imaging, making differentiation impossible.[4] MR imaging is useful for characterizing and determining the extent of vascular lesions. A combination of conventional MR imaging and Dynamic contrast enhanced MR angiography is especially useful in distinguishing between high- and low-flow lesions.[5]

## Case Report

A 62yrs old male presented with swelling in the anterior two-third of the tongue, with stuttering of speech and swallowing diffculty since 25 days. The swelling was incidental in onset , with rapid progression of growth and was associated with bluish discolouration. There was no associated features of pain and fever. Past medical, dental and personal histories were non-contributory. On physical examination, he appeared healthy with all vital signs being with in normal limits.

The Local intra-oral revealed the diffuse swelling noted involving the anterior 2/3rd aspect of the tongue, the surface appears granular with bluish discoluration and white patchy gelatinous geographical areas noted predominantly in ventral aspect of the tongue. The posterior 1/3rd of the tongue appears healthy with normal morphology. On palpation the swelling was soft in

consistency, non tender, afebrile with no palpable thrills. There was no restriction in the range of movements.

On the basis of clinical features and physical examination the clinical diagnosis of hemangioma with differential diagnosis of vascular malformation, angiomylipoma, angiosarcoma and Kaposi sarcoma were made. (Fig-1)

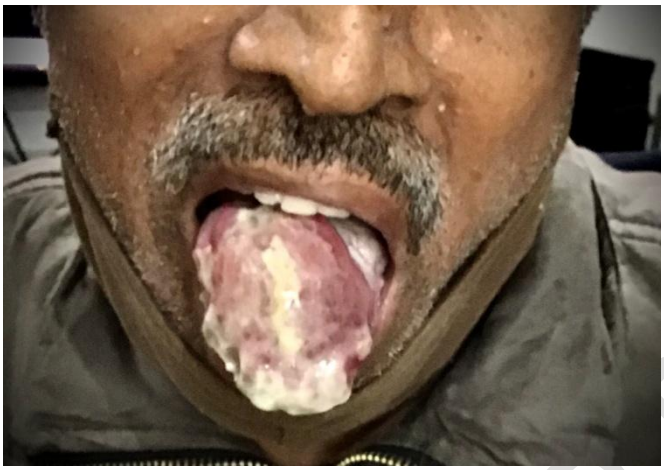

Fig 1: Image depicting the diffusely swollen tongue involving predominantly anterior 2/3$^{rd}$ , with bluish discolouration and gelatinous plaques noted along the ventral aspect.

The baseline routine investigations were normal. Color Doppler ultrasound revealed heterogeneously hypoechoic lesion involving anterior 2/3$^{rd}$ and extending across full thickeness, with markedly increased vascularity showing aterial flow.The diagnosis of Haemangioma with differential diagnosis of vascular malformation were taken into account and further CEMRI neck upto skull base is advised to know the exact extension and involvement of the lesion to decide the level of management.(Fig-2)

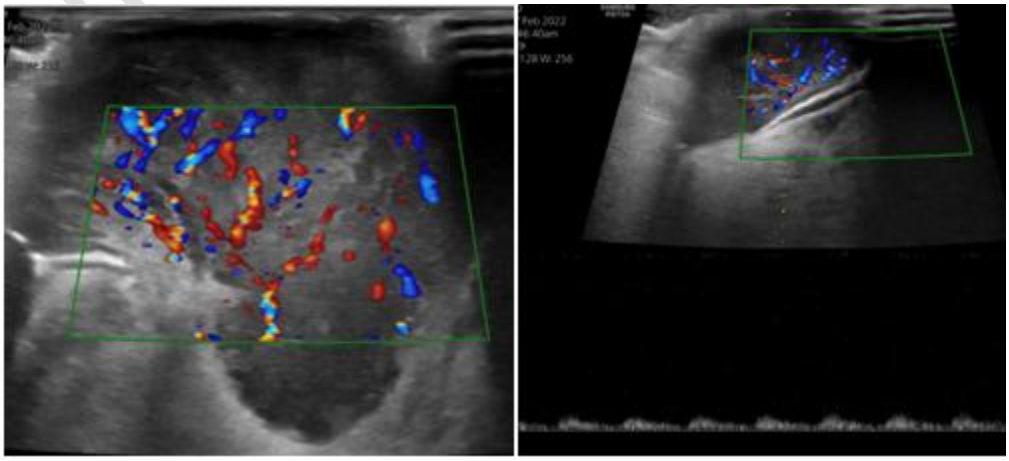

Fig 2 : Color Doppler ultrasonographic image of tongue depicting the heterogeneously hypoechoic intramuscular lesion involving diffusely, with marked increased vascularity and showing arterial biphasic flow.

CEMRI revealed well defined lesion involving anterior 2/3$^{rd}$ of the tongue. The lesion involves intrinsic muscles of the tongue and appears hypointense on T1WI, isointense on T2WI, and shows internal flow voids with avid homogenous post contrast enhancement with maintained fat planes with the surrounding structures. Thus the diagnosis of Haemangioma is made on the basis of imaging features and further fine needle aspiration cytology confirmed the diagnosis. (Fig-3)

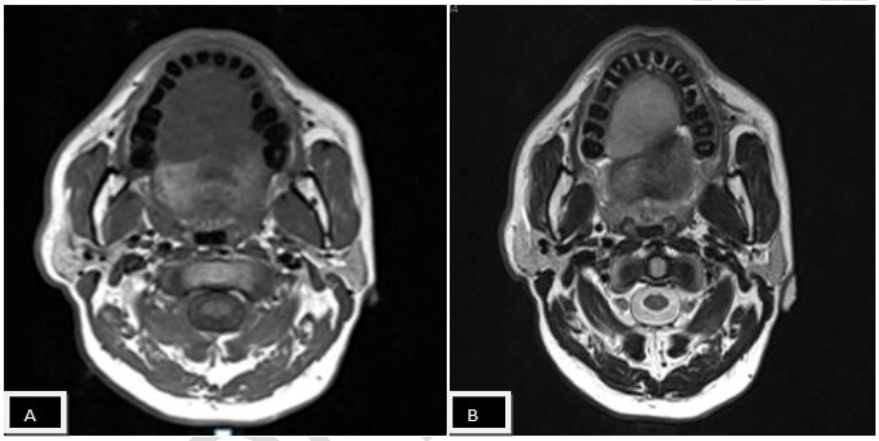


Fig 3a: Image depicting well defined lesion noted involing anterior 2/3$^{rd}$ of the tongue which is hypointense on $T_1$WI and iso-hyperintense on $T_2$WI.

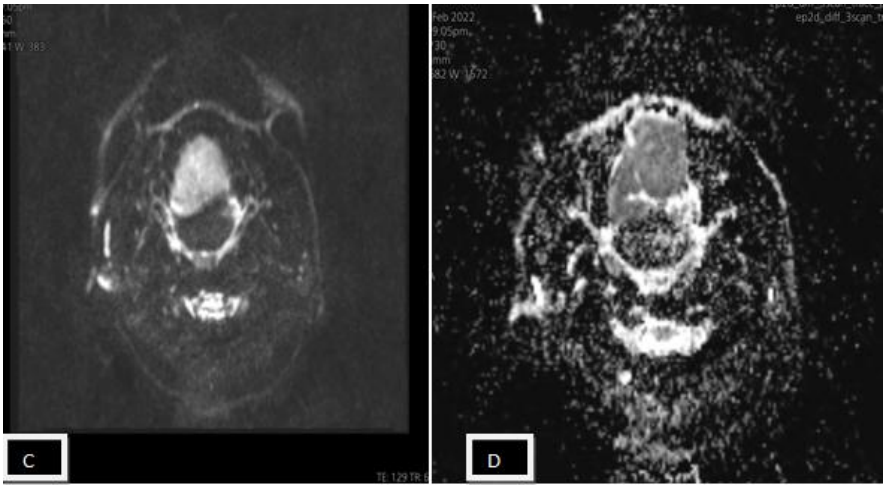


Fig 3b: The image depicting the presence of diffusion restriction in the lesion noted on DWI and ADC images.

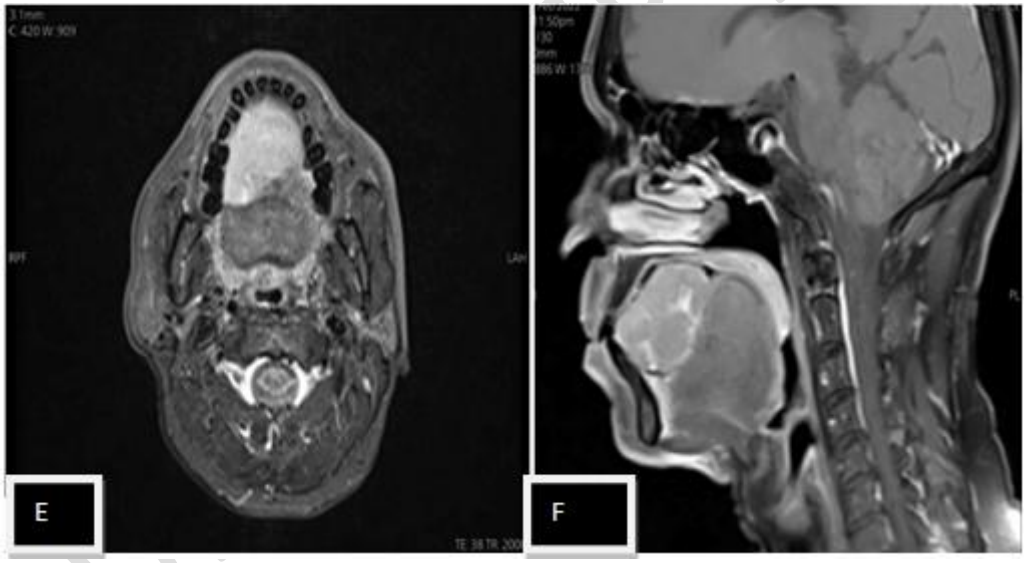


Fig 3c: Axial and saggital postcontrast images shows the homogenously avid post contrast enhancement of the lesion involving the anterior 2/3$^{rd}$ of the tongue.

**Discussion**

Hemangiomas are developmental vascular abnormalities characterized by proliferativegrowth phase and by very slow inevitable regression (involutive phase), and about 60% to 70% of the lesions are found in head and neck region. [6] The head and neck region is commonly affected especially the face, oral mucosa, lips, tongue and trunk. [7] Although hemangioma is considered as one of the most common tumors of the head and neck, it is relatively rare in the oral cavity and uncommonly countered by the clinicians. Imaging resources can be useful in both dianostic differentiation and analysis of lesion features with regard to its size, extension and location, as well as for follow up of lesions treated under a systemic therpy. Management of the hemangioma depends on the variety of factors, and most true hemangioma require no intervention. However, 10-20% requires treatment because of the size, exact location, stages of growth or regeneration. There are many treatment modalities involuing wait and watch policy for spontaneous involution, intralesional and systemic corticosteroids treatment, embolization, excision, electrolysis and thermocautery, immunomodulatory therpy with interferon alfa- 2a and laser photocoagulation. Currently, sclerothery is employed largely because of its efficiency and ability to conserve the surrounding tissues.[7]

**Conclusion**

Tongue hemangiomas are rare vascular benign neoplasm characterized frequently by slow and painless growth. The correct diagnosis is of utmost importance for treatment planning. Thus multimodality imaging including Color Doppler ultrasonography, Conventional MR imaging and Dynamic contrast MR angiography plays a pivotal role in unrevealing the diagnosis.

ANY EVIDENCE OF CONSENT?

**References**


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