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SURGICAL CHALLENGES IN THE TREATMENT OF HEMANGIOMA TONGUE IN A 7 YEAR OLD CHILD

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ABSTRACT: Capillary hemangiomas of tongue can present a difficult problem in management and much controversy exists over whether it is better to watch and wait for natural involution or to be more aggressive and opt for surgical treatment. We report a case of hemangioma with an atypical presentation without any history of bleeding episodes. On examination of right lateral border of tongue, there was no evidence of any previous trauma nor were there any visible pulsations. The lesion was treated with KTP 532 LASER by an intraoral approach. Patient had an uneventful recovery and at follow up had a normal speech and no difficulty in breathing, swallowing or aspiration.

KEYWORDS: Hemangioma; laser; tongue; speech.

INTRODUCTION: Lingual hemangiomas are common but often present with altered speech articulation, hemorrhage and cosmetic defects.⁴ They pose a difficult problem in view of the tongue being a mobile inquisitive organ is more prone for trauma and subsequent complications.

In this report we document a case of hemangioma affecting the right posterior aspect right lateral border of tongue. The diagnostic difficulties and the factors concerning treatment decisions are discussed.

CASE REPORT: A 10 year old boy presented with complaints of swelling over right lateral border of tongue (fig. 1) and difficulty in speech articulation for three months duration with no history of spontaneous or induced per oral bleeding. Clinical examination of neck did not reveal any clinical abnormality. On gross examination a 4 x 4 cm fleshy mass on the posterior aspect of right lateral aspect of tongue was seen which was non-pulsatile, non-tender and firm in consistency. This swelling did not show any blanching on pressure. Tongue movements were restricted due to mass effect during protrusion and elevation.

Biopsies were attempted twice elsewhere but were inconclusive. Magnetic Resonance Angiography revealed a well-defined hyperintense lesion seen in the posterior aspect of right lateral side of tongue causing smooth bulging into the oropharynx and causing displacement and compression of oral cavity to the left. It showed few areas of flow voids with a provisional diagnosis of hemangioma of tongue.

The patient underwent digital subtraction angiography which revealed supply from right lingual artery (Fig. 2a), and embolisation (Fig. 2b) of the same was done using poly vinyl alcohol. Laser assisted excision biopsy of the mass in toto was done using KTP-532 laser with 0.6 mm fibre preserving the muscles and the surgical defect in the tongue was then closed primarily. There was 10 ml of blood loss and no blood transfusion was given.

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The patient had an uneventful post-operative recovery. Oral feeds were initiated on the same day of surgery & patient was discharged the following morning. Post-operative lingual edema settled within one week & tongue movements were found to be normal with minimal pain.

On follow up at one month interval (Fig.3), patient had a normal speech, no symptoms suggestive of aspiration or any difficulty in swallowing. The surgical wound had healed well. At 6 months follow up there were no symptoms of residual or recurrence disease and patient was asymptomatic at the last week.

DISCUSSION: Lingual hemangiomas pose distressing problems to the patients, producing difficulty in speaking, deglutition, mastication, cosmetic deformity and recurrent hemorrhage.

Lingual hemangiomas may remain indolent or may produce obstructive symptoms or alarming hemorrhage.

Most lingual tumours present as mucosal changes & tongue being superficially located and easily accessed, these can be diagnosed without imaging analysis. However, the characteristic and extent of lesions situated at deep portion of tongue, such as its base and submucosal lesions can be recognised only on cross sectional CT and MRI.⁴

Hemangiomas usually appear as a well demarcated enhancing mass often containing phlebolith on CT scan.⁴ MRI shows hemangiomas as a solid mass with isointense or high signal intensity to muscle on T1 weighted images & heterogeneous signal intensity on T2 weighted images. Post contrast T1 weighted images commonly demonstrate prominent enhancement.⁴

A number of options exist for lesions that require therapy, including medical and surgical interventions. Medical management includes systemic and intralesional administration of corticosteroids.⁶ However only 30% respond to steroids and they are not free from complications.⁶

For lesions that do not respond to steroids, surgical therapy is often necessary. Surgery may be complicated by extreme blood loss. Surgical resection may be facilitated by pre-operative embolisation in selected cases although embolisation has also been used as a sole form of treatment for unresectable lesion. Laser photocoagulation³ is another modality of surgical treatment. Both surface and intralesional delivery of laser phototherapy are used for treatment of hemangiomas and vascular malformations. Although laser therapy has fewer complications, the frequent numbers of treatment, variable response and regrowth of lesion are the disadvantages of this technique.⁶

In the present case MR Angiography showed flow voids, hence a pre op embolisation was done following which patient was taken up for laser excision of mass. The need for necessary pre operative evaluation with assistance from interventional radiology followed by complete removal of the tumour with regular follow up is needed for effective management.

CONCLUSION: Although various modalities of treatment have been tried out for hemangiomas of the tongue, surgical excision with a meticulous follow up post-operatively is a definite option. Since the selection of appropriate treatment depends on accurate diagnosis, a biopsy may be necessary in lesions with discrepant imaging findings.

With the advent of newer gadgets like KTP 532 LASER and advanced intervention radiological techniques it is possible to excise such tumours from relatively difficult anatomical zones with a

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greater degree of precision and safety without compromising the normal physiological function related specifically to speech and deglutition.

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Fig. 1: Pink fleshy mass in the posterior part of right lateral border of tongue

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Fig. 2a: Pre embolisation picture showing vascular blush

Fig.2b: Post embolisation showing absent tumour blush

Fig. 3: One Month Post Op Picture Showing Completely Healed Tongue

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