

Case Report

A Giant Hemangioma of the Tongue

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Abstract

Introduction:

Vascular abnormalities are relatively uncommon lesions, but head and neck is a common region for vascular malformation which is classified as benign tumors. In this paper, the authors report a rare presentation of vascular malformation in the tongue and its managements.

Case Report:

An 18 months 2 old child presented with a giant mass of tongue which caused functional and aesthetic problem. The rapid growth pattern of cavernous hemangioma was refractory to corticosteroid. The lesion was excised without any complication. Since the mass was so huge that not only filled entire oral cavity but was protruding outside, airway management was a great challenge for anesthesia plan and at the same time surgical technique was difficult to select.

Conclusion:

Despite different recommended modalities in managing hemangiomas of the tongue, in cases of huge malformations, surgery could be the mainstay treatment and provided that critical care measures are taken in to account, could be performed very safely.

Keywords:

Head and Neck, Tongue, Tumor, Hemangioma, Vascular malformation

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Introduction

Vascular abnormalities are relatively uncommon lesions, but head and neck is a common region for vascular malformations which is classified as benign tumors (1,2). The presentation of this tumor at this site causes a lot of aesthetic problems. Among the different localizations of vascular malformations in the head and neck region, the tongue has specific characteristics; because it not only is susceptible to trauma, but also may cause speaking or swallowing problems.

Observation is the main treatment for hemangioma, but due to the intolerable symptoms it causes in this site, most patients seek more invasive types of treatment. The recommended treatment of hemangioma in special situations is steroids or surgical removal (1,3).

In this paper, the authors report a rare presentation of vascular malformation (4) in the tongue and its managements.

Case Report

The patient was an 18-month-old boy with a huge vascular lesion in his tongue. The swelling began at 2 months of age with a rapid growth during the first year of life which was refractory to high doses of corticosteroid therapy (prednisolone 4mg/kg for 4 weeks). The overgrowth of the tongue had caused speech and swallowing problems (Fig 1), and also growth deformity in the mandible. Additionally, the patient suffered from recurrent thrush infection and sleep problems i.e. snoring.

Because of the huge size of the tongue and the probability of airway compromise with any kind of sedation required for MRI or CT, no imaging could be used as an option for further diagnosis. The results of routine laboratory tests were normal, except for leukocytosis.

Urea: 38, Cr: 0.3, ALT: 36, AST: 52, K: 4.1, Na: 133, HB: 11, Ca: 11.5, PT: 23, WBC: 15000, HCT: 29.5, MCV: 54.7, PLT: 342000



Fig 1: A giant hemangioma of the tongue with difficulties in speech and swallowing.

Treatment Technique

The first challenging confrontation in treatment of the patient was airway management and selection of the type of anesthesia. To avoid tracheotomy and its attendant multiple complications especially in this young age, the tongue was compressed with wet gauze. Its size decreased only by about 15%. Then the patient was placed in a supine position and in a full conscious state, airway patency was tested, then inhalational anesthesia was induced. The surgical team and equipment were on stand for performing an in-time tracheostomy in case of an emergency. After reaching the surgical stage the tongue was pulled out with wet gauze, so laryngoscopy was eased and the child was safely intubated with a No. 3.5 ETT (Fig 2).



Fig 2: Intubation of the patient

Before beginning the resection of the peripheral segment of the tongue and in order to reduce the amount of hemorrhage, milking was done and then the tongue base was clamped and ligated with silk 2-0 sutures. The extension of malformation was up to the base of the tongue, but any invasion to that site was avoided. After applying the required preparations of the surgical field, the peripheral parts of the tongue were resected following hemostasis. The rest of the tongue was sutured with vicril 3-0. Dimensions of the resected section were 4.5 cm in length, 5 cm in diameter and 2.5 cm in maximal thickness (Fig 3). During surgery, the patient received 130cc packed cell and his postoperative hemoglobin was 9g/dl.



Fig 3: The resected parts of the tongue

After terminating the surgery and since we expected postsurgical edema and respiratory distress, the patient was admitted to the PICU. After 2 days, he was easily extubated and transferred to the ward and in the following two days he could eat with no trouble and was discharged from hospital.

The tissue examination revealed cavernous hemangioma with focal thrombosis in the resected section of the tongue.

One year later he could easily close his mouth without any difficulties and was able to eat and speak properly (Fig 4).

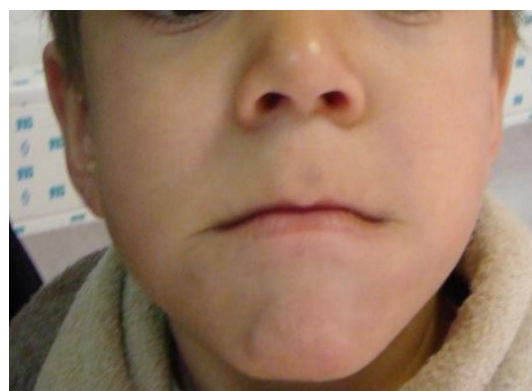


Fig 4: Photo of the patient one year after surgery

Discussion

Hemangioma is the most common soft tissue tumor of childhood (1,3,5). The head and neck region is the most common site for hemangioma development (about 60% of cases) (3). Although hemangioma of the tongue is not a rare lesion among head and neck vascular malformations, we explained an unusual cavernous hemangioma of the tongue which necessitated surgery at childhood (2,6,7). Among the different sites of head and neck hemangiomas, the tongue requires special consideration because of its susceptibility to minor trauma and consequent bleeding and ulceration, swallowing difficulties and breathing problem; Although the major concern is cosmetic issues in most cases (8). In contrast to vascular malformation, most hemangiomas regress in response to medical treatment or with conservative managements (3,4); but we encountered an uncommon case which not only did not regress, but also affected the normal life of the patient.

Most authors recommend surgery or combined therapy if there are severe problems in vision, breathing or eating of patients (3). Therefore as mentioned before, due to several problems in this case, conservative observation was not indicated. Yet still, the huge size of the mass confronted us with a great challenge in treating the patient.

Regarding other reports, outcome of the patient and the resection and anesthesiology techniques should be taken into consideration (6,8).

There are many reports on using preoperative embolization or applied sclera therapy or radiotherapy before or concomitant with surgery, but in our case it seemed that with a judicious surgical approach, there was no need for adjunctive poor measures.(3,5,8-11).

The main goal of our treatment was reducing the symptoms, because the lesion was extended to the base of the tongue which prevented total resection without sacrificing the vital elements. This approach seems reasonable despite the expectation of hemangioma regression

with the passage of time, which may not be always true for vascular malformations since these conditions may even further progress (4).

In our case, no similar lesion was found in other body systems and the tongue was the only site for the hemangioma; whereas 20% of hemangiomas are present at more than one site (3).

Conclusion

Despite different recommended modalities in managing hemangiomas of the tongue, in cases of huge malformations, surgery could be the mainstay treatment and provided that critical care measures are taken in to account, could be performed very safely.

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