

Cavernous Hemangioma of the Tongue: A Rare Case Report

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Abstract: Hemangioma is a benign tumor of dilated blood vessels. It is most commonly seen in the head and neck region and rarely in the oral cavity. They are considered as hamartomas. Here we report a case of a 29-year old female patient with swelling on the left lateral surface of the tongue, which did not respond to the medical management and was later on excised and proved as cavernous hemangioma. Even though radiotherapy, cryotherapy, laser therapy, medical treatment, injection of sclerosing agent and the selective embolization of the lingual artery have some efficacy, we conclude that due to utility of tongue in speech and swallowing, surgery is the treatment of choice in the isolated vascular lesions of the body of the tongue.

Keywords: Cavernous hemangioma, hemangioma, tongue

INTRODUCTION

Hemangiomas are developmental vascular abnormalities. It is characterized by a proliferative growth phase and by very slow involutive phase or regression. About 60-70% lesions are found in head and neck region [1]. Hemangiomas are rare in the oral cavity. But they may occur on tongue, buccal mucosa, lips, palatal mucosa, gingiva, salivary glands, alveolar ridge, and jaw bones [2, 3]. Hemangiomas are classified into two types, capillary and cavernous forms [4, 5]. Capillary hemangioma is characterized by many small capillaries that are lined by a single layer of endothelial cells supported in a connective tissue stroma of varying density. Cavernous hemangioma is formed by large, thin walled vessels, or sinusoids lined by endothelial cells that are separated by thin layer of connective tissue septa [6].

Hemangiomas are considered as benign tumors that are characterized by 3 stages [7]:

- Endothelial cell proliferation,
- Rapid growth and
- Spontaneous involution.

The pathophysiology of hemangiomas is attributed to genetic and cellular factors, mainly to monocytes that are considered as the potential ancestors of hemangioma endothelial cells [8]. Lesions in Hemangiomas are believed to occur as a result of imbalance in the angiogenesis. It causes an uncontrolled

proliferation of vascular elements, associated with substances such as endothelial growth factor, vascular basic fibroblast growth factor, and indole-amine 2,3-dioxygenase that are found in large amount during proliferative stages [9-11].

The presentation of hemangioma at tongue causes a lot of aesthetic problems. The tongue is susceptible to trauma, also may cause producing cosmetic deformity, recurrent hemorrhage, and functional problems with speaking, mastication and deglutition [1, 12, 20].

Most patients seek invasive types of treatment due to the intolerable symptoms at this site. The recommended treatment in special situations is sclerosing agents or surgical removal [13, 14]. We report a case of growth on lateral border of tongue which was later on found to be cavernous hemangioma.

CASE REPORT

A 29-year old female presented to ENT Department with the chief complaint of swelling on the lateral surface of left side of the tongue. According to the patient, the swelling was present for last 1 year and for the past 3 months, the swelling on the tongue gradually increased to the present size. There were no associated features of pain, fever, bleeding, difficulty in the speech and swallowing. On general physical examination, the patient was normally built and all her vitals were within normal limits. No relevant past or

medical history was observed. On intraoral examination, there was a growth present on left lateral surface of tongue and measured about 1.4cmx1.4cm. The growth appeared grossly as red coloured with a bluish hue (Fig.1). The growth was immobile, soft on palpation, blanched on pressure and was free from surrounding structures.



Fig. 1: Photograph showing the swelling over left lateral surface of the tongue

Depending on clinical features, a provisional diagnosis of hemangioma with differential diagnosis of granular cell myoblastoma, angiomyolipoma, angiosarcoma and hemangiosarcoma was made.

Initially a sclerosing agent was administered topically and the mass was observed for one week but no change in the appearance or size of mass was observed. After one week, surgical excision was carried out. No major bleeding was observed. The excised specimen was sent for histopathological examination. Primary closure was done. The histopathology report confirmed the diagnosis of cavernous hemangioma (Fig.2). Recovery was uneventful.

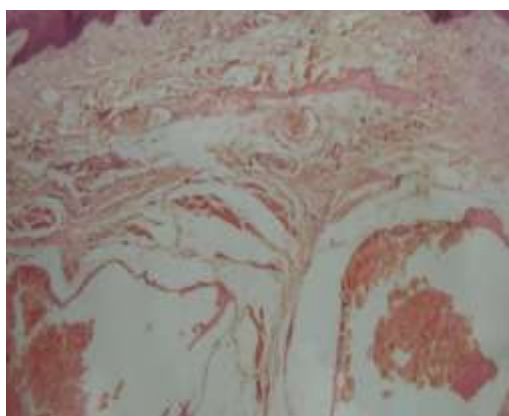


Fig 2: Histopathological view of cavernous hemangioma (H & E stained section, x40 magnification)

DISCUSSION

The hemangiomas in tongue requires special consideration. It is susceptibility to minor trauma and consequent bleeding and ulceration, swallowing difficulties, and breathing problems, although in most cases the major concern is cosmetic [15].

On the basis of histopathological evaluation, it was confirmed to be a cavernous hemangioma.

Cavernous hemangiomas consist of deep, irregular, dermal blood-filled channels; composed of tangles of thin walled cavernous vessels or sinusoids, separated by a scanty connective tissue stroma [16]. The superficial hemangiomas are often lobulated. They blanch under finger pressure. The deeper lesions tend to be dome shaped with normal or blue surface coloration [17].

Appearance of the lesions depends on the stage of evolution. The early lesions may be very cellular with solid nests of plump endothelial cells and little vascular lumen; while established lesions are comprised of well-developed, flattened, and endothelium lined capillary channels of varying sizes in a lobular configuration. Involuting lesions are associated with increased fibrosis and hyalinization of capillary walls with luminal occlusion [18].

There is presence of large dilated blood sinuses with thin walls each showing an endothelial lining in cavernous hemangioma. Sinusoidal spaces are usually filled with blood, although there might be presence of lymphatic vessels [4].

There are many treatment modalities reported in the literature for head and neck hemangiomas that include [19]

- Wait and watch for spontaneous involution,
- Intralesional systemic corticosteroid treatment,
- Embolization,
- Excision,
- Electrolysis,
- Immunomodulatory therapy with interferons and
- Laser photocoagulation

Currently, sclerotherapy is employed largely because of its efficiency and ability to conserve the surrounding tissues [7].

CONCLUSION

The hemangioma is a benign proliferation of endothelial cells. It is common in head and neck region and relatively rare on the tongue. Early detection and biopsy are crucial in determining the clinical behaviour

of this vascular lesion and its potential complications. Most congenital hemangiomas regress spontaneously without treatment. However we conclude that due to utility of tongue in speech and swallowing, surgery is the therapy of choice in the isolated vascular lesions involving the tongue.

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