



# Hemangioma of Lower Lip - A Case Report

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## Abstract

Hemangioma is one of the most common benign tumors of vascular origin affecting 12% of newborns. Hemangioma of infancy is most common around head and neck region, almost 60% of cases and most common sites are lips, tongue and palate. Almost 90% of lesion disappears within 9 years of age. Rarely hemangiomas may persist and require treatments. Treatment may be systemic or surgical depends on size, location and stage of hemangioma. Surgical treatments simple excision or combinations with plastic surgery are rarely indicated. In this study we present a case of hemangioma involving lower lip in 8 year old female which is recognized and treated in our institution.

**Keywords:** Hemangioma; Lip; Tumor; Vascular malformation.

## 1. Introduction

Hemangioma is the most ordinary benign tumor of vascular origin, occurring most frequently in newborns and during infancy and childhood [1], although some cases develop in adults and its common sites are lips, tongue and palate [2]. Hemangiomas are three times more common in females than in males. Historically, hemangiomas have been classified in a variety of ways. An important descriptive classification is related to the depth of soft tissue involvement: Superficial, Deep and Mixed [3]. The skin is the organ of most frequent occurrence. Clinically hemangioma presents as smooth or lobulated soft tissue mass, measuring few millimeters, which is hardly noticeable, to several centimeters causing physical abnormalities and functional disturbance [4]. Most of the lesion involutes spontaneously, needing no further treatment.

## 2. Case Report

An 8 year old female patient reported to our institution with a chief complaint of swelling of lower lip. The swelling developed 8 months after birth which had increased in its size considerably ever since. She also had erythematous area on right side of the face, lower lip, tongue and floor of mouth since birth, which is subsiding as the age progresses. The lesion was harming the patient's social relationship, disturbing her routine and compromising her facial esthetics. The general health of the patient was normal and medical history reveals no significant health problems. Patient had difficulty in closing the mouth. Extra orally, on inspection, uniformly enlarged erythematous lower lip and also erythematous area seen on the right corner of mouth which is irregular in shape, measuring 2.5x3cm [Fig.1]. On palpation, it is soft, non-tender and has an increased tendency of bleeding. Intra-orally, on inspection, uniform erythematous area seen on the right side of tongue and floor of mouth, measuring 3x2.5cm [Fig.2]. On palpation, it is soft, non-tender. Based on clinical examination we came to a diagnosis of hemangioma and the differential diagnosis of hemangioma includes arteriovenous malformation. A Panoramic radiograph was taken to rule out central hemangioma [Fig.3].

## 3. Discussion

Hemangiomas and vascular malformations are two distinct groups of vascular lesions. The term hemangioma encompasses heterogeneous group of vascular lesions characterized by altered endothelial cell growth and proliferation. In contrast, vascular malformations are structural anomalies of blood vessels without endothelial cell proliferation [5, 6]. Table 1 shows difference between hemangioma and vascular malformations [4-6].

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Hemangioma	Vascular Malformation
Appears few weeks to months after birth, rarely present at birth	They are present from birth
Females are predominantly affected	Affect male, female and infants
Shows three phases of growth pattern: rapid growth phase, quiescent phase, and phase of regression	Increase in size as patient grows
Characterized by altered endothelial cell growth and proliferation	Do not regress spontaneously
Sub-divided into superficial, deep and mixed type	They are structural anomalies of blood vessel
	No endothelial proliferation
	Sub-divided into capillary, venous, arterial and lymphatic malformations

According to Katz, hemangioma is defined as an abnormal proliferation of blood vessels that may occur in any vascularized tissues and that considerable debate exists as to whether these lesions are neoplasms, hamartomas or vascular malformations. Hemangioma being characterized by three stages: endothelial cell proliferation, rapid growth and at last, spontaneous involution. Vascular lesions are classified based on anatomical, structural features and biological behavior [5].

In our case, development of swelling 3 years after birth and persistence of swelling even after 5 years made us consider both vascular malformation and hemangiomas in differential diagnosis. Positive diascopic test and absence of bruit and thrill during auscultation, made us to arrive at the diagnosis of hemangioma.

Hemangioma is classified into:

1. Superficial (Capillary hemangioma):- composed of small capillaries lined by single layer of endothelial cell
2. Deep (Cavernous Hemangioma):-formed by large, thin walled vessels or sinusoids lined by epithelial cells
3. Mixed or Compound (Capillary cavernous hemangioma)

In this case, both superficial and deeper tissues of lower lip were involved leading us to the diagnosis of compound hemangioma. In some cases enlargement of endothelial tissues into adjacent tissues that subsequently become canalized and vascularized. Central hemangioma is usually congenital and occurs commonly in mandible. Panoramic radiographs rule out central hemangioma from other types. Etiology and pathogenesis of hemangioma remains unknown but child bearing age, gestational hypertension and infant birth weight are the common factors. Large persisting hemangiomas may cause physical disfigurement, functional disturbance for which the treatment becomes mandatory. Administration of systemic corticosteroids, intralesional injection of sclerosing agents, electrocoagulation, cryosurgery, laser therapy, embolization and surgical excision are some of the treatment modalities practiced for hemangioma. In this case the patient is not advised for any surgical correction as the patient is in the growing stage and there is every chance for the lesion to be subsided.

### 3. Conclusion

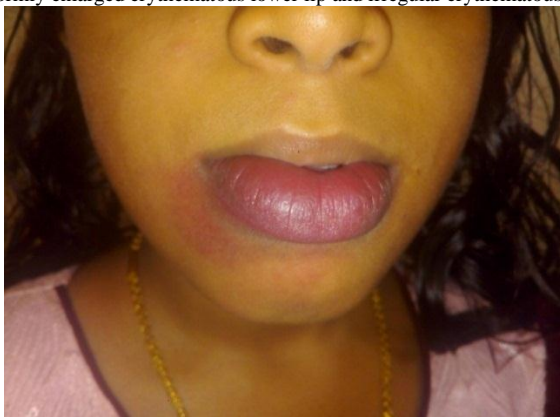
Detailed study of hemangiomas and its growth pattern needs to be performed to hopefully yield targeted therapeutics to treat and reduce the unnecessary social embarrassment to the patient and despite different recommended modalities in managing hemangiomas of lip, in case of huge malformations, surgery could be the mainstay treatment and provided that critical care measures are taken into account, could be performed ever safely.

### References

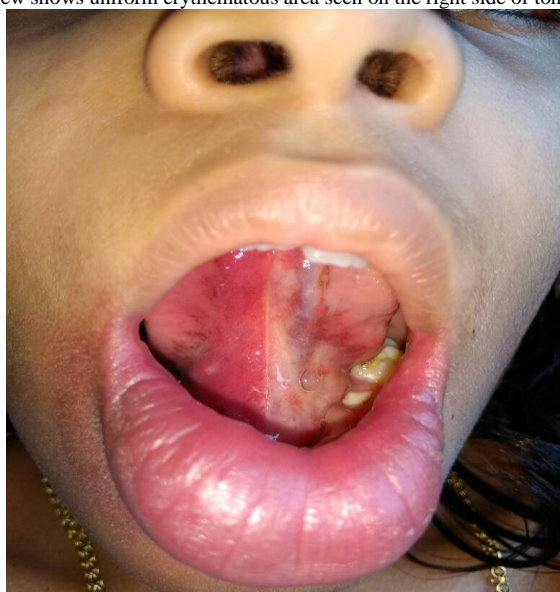
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## Figures

**Figure-1.** Extra oral view shows uniformly enlarged erythematous lower lip and irregular erythematous area seen on the right corner of mouth



**Figure-2.** Intra oral view shows uniform erythematous area seen on the right side of tongue and floor of mouth



**Figure-3.** Panoramic radiograph with no evidence of central hemangioma

