

# Hemangioma of the Lower Lip

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## Abstract

**H**emangioma is one of the most common benign tumors of vascular origin affecting 10-12% of children at 1 year of age. It is known that hemangiomas of infancy are most commonly located on the head and neck region (around 60% of cases) and occur more frequently in the lips, tongue and palate. Approximately 50% of hemangiomas resolve by itself and 90% resolve by 9 years of age. Complications occur in only 20% of the cases, the most common problem being ulceration with or without infection. Rarely hemangiomas may persist, warranting systemic or surgical treatment. Treatment depends on size, location, and evolution stage of the lesion. Surgery is usually indicated when there is no response to systemic treatments or even for esthetic reasons, being performed as a simple excision in combination or not with plastic surgery. In this study, we present a case of hemangioma involving lower lip in a 17-year-old male which was recognized and treated in our institution.

**Keywords:** Head and Neck, Tumor, Hemangioma, Lip, Vascular malformation.

## Introduction

Hemangioma is the most ordinary benign tumor of vascular origin, occurring most frequently in newborns and during infancy and childhood, although some cases develop in adults.<sup>1</sup> It affects approximately 10-12% of children at 1 year of age, and up to 30% of those weighing up to 1,000 g at birth.<sup>2,3</sup> 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.<sup>4</sup> Hemangiomas are three times more common in females than in males. Sixty percent of the lesions occur in head and neck region with lip, tongue and palate being the preferred site. The skin is the organ of most frequent occurrence.<sup>1</sup> Clinically, hemangioma presents as smooth or lobulated soft tissue mass, measuring few millimeters, which is hardly noticeable, to several centimeters causing physical disfigurement and functional disturbance.<sup>1,5</sup> Most of the lesion involutes spontaneously, needing no further treatment. Treatment for the persistent lesion depends on age of the patient, size, location, extension and evolution stage of the lesion.<sup>5,6</sup>

## Case Report

A 17-year-old male patient reported to our institution with a chief complaint of swelling of the lower lip. The swelling developed four months after the birth which

had increased in its size considerably ever since. The lesion was harming the patient's social relationships, disturbing his routine and compromising his facial esthetics. The general health of the patient was normal and medical history revealed no significant health problems. The patient had difficulty in closing the mouth. The swelling was well lobulated and had well-defined margins extending throughout the lower lip. The skin over the swelling appeared normal except for the dryness over it (Fig. 1, 2). Palpation revealed a soft and nontender swelling (Fig. 3). The differential diagnosis of hemangioma or arterio venous malformation was narrowed to hemangioma when auscultation revealed no thrill or bruit. Magnetic resonance imaging (MRI) findings brought to the limelight the diagnosis of hemangioma. Intralesional injection of triamcinolone under pressure was administered following which complete excision of the lesion was carried out. Histopathological report revealed large dilated blood sinuses with thin walls lined by endothelium. The sinusoidal spaces were filled with red blood cells. The histopathology conclusively made us arrive at a diagnosis of hemangioma involving both superficial and deeper tissues.

## Discussion

Hemangiomas are considered benign tumors of the infancy and childhood and have a different life cycle, being characterized by 3 stages: endothelial cell proliferation, rapid growth and at last, spontaneous involution. They present varied clinical aspects, and can be noted as early as in the 6 month of age as an erythematous spot, reaching great proportions throughout the course of 4 years<sup>7,8</sup> as observed in the present clinical case. The lesion affects females higher. With regard to the location and the number of lesions, a similarity with cases reported in the literature was observed, since approximately 80% of the patients present a single lesion and the head and neck region is the most commonly affected.<sup>9</sup> The hemangiomas and vascular malformations are two distinct groups of vascular lesions, which are often confused with each other, and unfortunately terms have been used interchangeably. Vascular lesions are classified based on anatomical, structural features and biological behaviour.<sup>10</sup> They divided the lesions majorly into hemangiomas and other vascular malformations. 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.<sup>10,11</sup>

In this case, development of swelling soon after the birth and persistence of swelling even after 17 years made us consider both vascular malformation & hemangiomas in differential diagnosis. Hemangiomas involute by itself at or around 10 years of age which was not true in our case. But the absence of bruit or thrill during auscultation along with MRI report and histopathological view, made us to arrive at the diagnosis of hemangioma.

Hemangiomas are the most common tumor of infancy and are three times more common in females and males. Sixty percent are localized to head and neck region.<sup>1,5,11</sup> Lip may be one of the common site to develop.<sup>5,10</sup> Hemangiomas are classified into superficial (capillary hemangioma), deep (cavernous hemangioma) and compound or mixed (capillary cavernous hemangioma) type.<sup>1,6</sup> In this case, both superficial and deeper tissue of lower lip were involved leading us to the diagnosis of compound hemangioma.

Large, persisting hemangiomas may cause physical disfigurement functional disturbance for which the treatment becomes mandatory.<sup>1,5</sup> Administration of systemic corticosteroids, intralesional injection of sclerosing agent, electrocoagulation, cryosurgery, laser therapy, embolization, and surgical excision are some of the treatment modalities practiced for hemangioma.<sup>5,10</sup> In this case, intralesional injection of triamcinolone under pressure was administered following which complete excision of the lesion was carried out.

## Conclusion

Detailed study of hemangioma 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 the lip, in cases of huge malformations, surgery could be the mainstay treatment and provided that critical care measures are taken into account, could be performed very safely.

## References

References are available on request at [editor@healtalkt.com](mailto:editor@healtalkt.com)

