



ORIGINAL RESEARCH PAPER

Dental Science

Oral hemangioma – a case report and review of literature

KEY WORDS: Capillary hemangioma, cavernous hemangioma, vasoformative neoplasm, hemihypertrophy

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ABSTRACT

Hemangioma is a benign vasoformative neoplasm of endothelial origin . Its natural course includes a rapid postnatal growth followed by a slow spontaneous regression, which may take even several years. Although hemangioma is considered one of the most common soft tissue tumors of the head and neck, it is relatively rare in the oral cavity and uncommonly encountered by the clinicians. They may be cutaneous, involving skin, lips and deeper structures; mucosal, involving the lining of the oral cavity; intramuscular, involving masticator and perioral muscles; or intra-osseous, involving mandible and/or maxilla. Management of hemangiomas and the treatment of choice depend on several factors including the age of the patient and the size and extent of the lesions, as well as their clinical characteristics.

INTRODUCTION:

Hemangioma is a benign vasoformative neoplasm of endothelial origin . Its natural course includes a rapid postnatal growth followed by a slow spontaneous regression, which may take even several years[1]. Hemangioma is a term that encompasses a heterogeneous group of clinical benign vascular lesions that have similar histologic features [2]. It is a benign lesion, which is a proliferating mass of blood vessels and do not undergo malignant transformation. There is a higher incidence in females than males.

Although hemangioma is considered one of the more common soft tissue tumors of the head and neck [2], it is relatively rare in the oral cavity and uncommonly encountered by the clinicians. They may be cutaneous involving skin, lips and deeper structures; mucosal, involving the lining of the oral cavity; intramuscular, involving masticator and perioral muscles; or intra-osseous, involving mandible and/or maxilla [3,4].

Hemangiomas are classified on the basis of their histological appearance as Capillary and cavernous hemangiomas [2,5].

1. Capillary hemangioma are composed of small thin-walled vessels of capillary size that are lined by a single layer of flattened or plump endothelial cells and surrounded by a discontinuous layer of pericytes and reticular fibres [5].
2. Cavernous hemangiomas consist of deep, irregular, dermal blood-filled channels [2]. They are composed of tangles of thin-walled cavernous vessels or sinusoids that are separated by a scanty connective tissue stroma [5]. Mixed hemangiomas contain both components and may be more common than the pure cavernous lesions [5].

Clinically hemangiomas are characterized as a soft mass, smooth or lobulated, sessile or pedunculated and may be seen in any size from a few millimeters to several centimeters [5]. The color of the lesion ranges from pink to red purple and tumor blanches on the application of pressure, and hemorrhage may occur either spontaneously or after minor trauma. They are generally painless. These tumors are mostly seen on the face, fingers and occasionally seen on oral mucosa. Oral hemangiomas are usually seen on the gingiva and less frequently at other sites [5], [6].

Management of hemangiomas and the treatment of choice depend on several factors including the age of the patient and the size and extent of the lesions, as well as their clinical characteristics. Some congenital lesions may undergo spontaneous regression at an early age [7]. If superficial lesions are not an esthetic problem and are not subject to masticatory trauma, they may be left untreated . Small and superficial lesions may be completely excised with relative ease. However, excision of more deeply seated lesions usually involves a wider surgical approach, which may result in a disfigurement that is difficult to accept for the treatment of these lesions. In addition, emergency surgery may become mandatory when arterial bleeding arises from intraosseous hemangiomas of the jaw which are often unnoticed following simple tooth extraction, which is mainly of concern to the dentist[3].

Various other treatments have been used in the management of hemangiomas, including oral corticosteroids, intralesional injection of fibrosing agents, interferon -2b, radiation, electrocoagulation, cryosurgery, laser therapy, embolization and surgical excision Recurrence has been reported [2].

Clinically, the patient may be completely symptom-free or may present discomfort, pulsatile bleeding, bluish discoloration, mobile teeth, derangement of the arch form or accelerated dental exfoliation. Most frequently radiographic finding is a multilocular radiolucent image with honeycombs or soap bubble appearance. Differential diagnosis includes neoplasms such as ameloblastoma, cystic lesions such as residual cyst, keratocyst and fibro-osseous lesions such as fibrous dysplasia[2]. Hemangiomas can be asymptomatic, but if the lesion is extended to the operating field of the dentist and when accidentally gets disturbed it can lead to complications like severe bleeding, secondary infections and sores, which necessitates the importance of having thorough knowledge about the diagnosis, clinical features, possible complications and management of hemangiomas to avoid future complications and to take necessary precautions.

So the present case report and review is about the importance of oral hemangioma and the careful treatment protocol.

CASE REPORT:

A 9 year old male child reported to the department of pedodontics, Ragas dental college and hospital with the complaint of pain and swelling in the 64 region and also for the replacement of missing 11 and decay in 36[FIGURE1 AND 2]. During physical examination a left-sided hemihypertrophy of the face with congenital hemangioma (red spot lesions) was observed[FIGURE 3]. His mouth was deviated toward the left side of his face with a similar lesion visible on the forehead. No other similar lesions were clinically visible in other parts of the head and neck region. No lymph nodes were palpable, On intra oral examination swelling was evident in the gingival region extending from one arch to the other. From history it was revealed that he has the asymmetry and red spots from the birth which was diagnosed as congenital hemangioma. Medical investigation were all within normal limits, patient referred to voluntary health service for opinion and later to which extraction of 64 was performed and impressions were made for replacement of the missing anterior teeth. Limitations of this report includes that we were not able to do any further investigations using MRI and ULTRASOUND due to patients in acceptance.

DISCUSSION:

A hemangioma is a developmental malformation of blood vessels and not typical tumour. So it is considered to be an example or hamartoma. Such theory can be explained by the fact that (i) hemangioma are often present from birth and (ii) they never turns malignant[8].About 30% of hemangiomas are present at birth. The rest appear in the first several months of life. Most hemangiomas are on the face and neck. The hemangioma

may seen In the top skin layers (capillary hemangioma), Deeper in the skin (cavernous hemangioma) or a mixture of both. The Symptoms includes a red to reddish-purple, raised sore (lesion) on the skin or massive, raised tumor with blood vessels[9] The most frequent location for oral haemangiomas is the lip , molar-premolar region [7].

Pathogenesis and origin of haemangioma remain incompletely understood. However, various theories have been proposed to elucidate the mechanism and pathogenesis of haemangioma. Aberrant and focal proliferation of endothelial cells results in haemangioma, although the cause behind this remains unclear. A variety of other lesions can resemble haemangioma in the oral cavity. The differential diagnosis includes pyogenic granuloma, chronic inflammatory gingival hyperplasia, epulis granulomatosa, telangiectasia, angiosarcoma, squamous cell carcinoma, and other vascular appearing lesions of face or oral cavity such as Sturge Weber Syndrome

Exams and Tests

Hemangiomas are diagnosed by a physical examination. In the case of deep or mixed lesions, a CT or MRI scan may be performed. Occasionally, a hemangioma may occur with other rare conditions. Additional tests may be done for these syndromes.

Complications and management in dental situation:

Bleeding during dental procedure are often sudden, punctate, and frightening. Bleeding can be stopped, by applying pressure for 10 minutes and usually repeated bleeding is rare. If it occurs, suturing may be indicated. Ulceration is particularly common in hemangiomas of the lips. Secondary infection invariably accompanies ulceration. Superficial ulceration usually responds to daily cleansing and application of topical antibiotic ointment. Deeper ulceration may require dressings – these lesions often take several weeks to heal. Recurrent ulceration after healing is rare. Extensive and/or refractory ulceration may be an indication for pharmacologic therapy[10].

CONCLUSION:

Haemangiomas usually present in childhood, and can be seen from birth. They have a predilection for females and are uncommon in the oral cavity. In the oral region, the most frequent location is the lip. The majority of congenital haemangiomas regress spontaneously without needing treatment. The treatment of choice is surgical excision of the lesion. Dentist should concern about the complication behind it during dental procedures and make a treatment plan accordingly

LEGENDS:

figure 1 : clinical photograph showing missing 11.
 figure 2: clinical photograph showing maxillary occlusal view.
 figure 3: frontal view showing hemihypertrophy and red spot lesions over face.

FIGURE 1:



FIGURE 2:

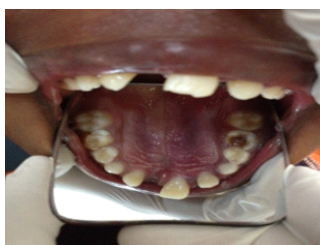


FIGURE 3:



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