



## CAPILLARY HAEMANGIOMA OF THE HARD PALATE - A CASE REPORT

<sup>1</sup>Dr. M. Khaja Khalid Nawaz\* MDS., PGDHS., CYPHRD., FDOMS (iasr)., FAGE, <sup>2</sup>Dr. G. S. Sivaraman Sivakumar M.D.S, <sup>3</sup>Dr. Santham Krishnamurthy M.D.S, <sup>4</sup>Dr. Selvabalaji M.D.S, <sup>5</sup>Dr. Nazriya Nawaz B.D.S

<sup>1</sup>Consultant Oral and Maxillofacial Surgeon Dr. H. Gordon Roberts Hospital East Khasi Hills, Jaiaw, Shillong, Meghalaya, India - 793002.

<sup>2</sup>Senior Lecturer, Department of Oral Medicine Vivekananda Dental College for Women Namakkal, Tamil Nadu.

<sup>3</sup>Senior Lecturer, Department of Pedodontics Satyabhama Dental College Chennai, Tamil Nadu.

<sup>4</sup>Senior Lecturer, Department of Pedodontics Indira Gandhi Dental College Pondicherry.

<sup>5</sup>Dental Surgeon Dr. H. Gordon Roberts Hospital East Khasi Hills, Jaiaw, Shillong, Meghalaya, India - 793002.

**Corresponding Author: Dr. M. Khaja Khalid Nawaz**

Consultant Oral and Maxillofacial Surgeon Dr. H. Gordon Roberts Hospital East Khasi Hills, Jaiaw, Shillong, Meghalaya, India - 793002.

Article Received on 02/05/2016

Article Revised on 23/05/2016

Article Accepted on 14/06/2016

### ABSTRACT

Hemangiomas are benign tumors characterized by proliferation of blood vessels. They are classified as capillary, cavernous or central and miscellaneous. Capillary hemangioma is the most common variant of haemangioma usually occurs on the head and neck region. Buccal mucosa, tongue and lips are the commonly affected sites in the oral cavity, while the hard plate and soft palate are rarely affected. Capillary hemangioma can be treated in a variety of ways depending on the location and its severity. We report a case of a capillary Haemangioma of the hard palate in a 10-year-old boy. Surgical excision of the lesion was performed under general anesthesia and the diagnosis was made after the histopathological report.

**KEYWORDS:** Capillary Haemangioma, Surgical Excision, Hard Palate.

### INTRODUCTION

Haemangiomas are tumors that are characterized by the proliferation of blood vessels predominantly blood capillaries<sup>[1]</sup>. Hemangioma's are commonly recognized at an early age. They are considered to be the most common childhood tumor, exhibiting a rapid growth phase with endothelial cell proliferation followed by gradual involution. In the oral cavity they may occur at any age, without any racial or gender predilection. The tongue, buccal mucosa and lips are the most common sites of occurrence, while the hard and soft palates and are rarely affected<sup>[2]</sup>. Other than the hereditary factors, the etiology behind haemangioma still remains unclear. Haemangiomas are broadly classified into capillary, cavernous, and miscellaneous<sup>[3]</sup>. Capillary Haemangiomas further include juvenile, pyogenic granuloma, and epithelioid haemangioma. Haemangioma is histologically further classified into capillary and cavernous forms<sup>[4]</sup>. Capillary haemangioma is composed of many small capillaries lined by a single layer of endothelial cells supported in a connective tissue stroma of varying density, while cavernous haemangioma is composed of large, thin walled vessels lined by epithelial cells separated by thin layer of connective tissue septa. Clinically, haemangioma appears as soft mass, smooth or lobulated, and sessile or pedunculated and may vary in size<sup>[5]</sup>. They are usually deep red and may blanch on the

application of pressure and sometimes interfere with mastication.

### CASE REPORT

A ten-year-old boy reported to our oral and maxillofacial surgery outpatient department with the complaint of painful swelling in the upper anterior front teeth region. Intra oral examination showed the presence of growth in relation to right anterolateral part of hard palate. The growth was soft, leathery, reddish pink in color, bleeds on touch, non-tender and measured up to 3x1cm in diameter extending from the upper right central incisor to the upper right deciduous molar (Fig 1). A panoramic radiograph was taken which revealed the presence of an erupting upper right first premolar and canine with a circumscribed radiolucency indicating bone loss (Fig 2). A provisional diagnosis of pyogenic granuloma was given and planned for surgical excision. Procedure explained to the patient and an informed consent was obtained. Surgical excision of the lesion and bone curettage was performed under general anesthesia without disturbing the erupting permanent teeth's and closure was done with 3-0 vicryl (Fig 3). Haemostasis was achieved and the patient extubated uneventfully. The specimen was send for the histopathological examination (Fig 4). The microscopic features showed a polypoidal mass made up of proliferated vascular channels in a

densely inflamed stroma suggestive of Lobular Capillary Haemangioma.



**Figure 1: Pre-operative**



**Figure 2: Panoramic Radiograph**



**Figure 3: Post-operative**



**Figure 4 : Excised specimen**

## RESULTS AND DISCUSSION

Haemangiomas of the head and neck region is relatively common, representing at least one third of all hemangiomas. It is relatively rare in the oral cavity. In general, hemangiomas are developmental whereas vascular malformations are present at birth. Hemangiomas are most often recognized at an early age and encountered more frequently in females whereas Vascular malformations occur in equal incidence<sup>[6]</sup>. Vascular malformations are localized or diffuse errors of embryonic development. These are also classified as capillary, lymphatic, venous, arterial or a combination of these depending on the clinical and histological appearance of abnormal channels. The most common capillary malformation observed clinically is the "Port wine stains" which are well circumscribed pink or purple macular lesions<sup>[7]</sup>. Excesses of the angiogenic factors or decreases of angiogenesis inhibitors have been implicated in the development of hemangiomas<sup>[8]</sup>. They are broadly classified into capillary, cavernous, and miscellaneous. Capillary Haemangiomas further include juvenile, pyogenic granuloma, and epithelioid haemangioma. Haemangioma is histologically further classified into capillary and cavernous forms. Differential diagnosis of capillary haemangioma of the

oral cavity may include squamous cell carcinoma, Kaposi's sarcoma, metastatic carcinoma, epulis, telangiectasia and fibroma<sup>[9]</sup>.

The management of a true hemangiomas require no intervention; they undergo spontaneous regression at an early age. Only 10-20% requires treatment because of their size, location or their behavior. The management of Haemangioma are micro embolization, cryotherapy, sclerosing agents, corticosteroids, laser therapy and complete surgical excision. The prognosis of hemangioma is good since it does not tend to recur or undergo malignant transformation following adequate treatment<sup>[10]</sup>.

Results: In our present case, the treatment comprised of complete surgical excision of the lesion followed by a thorough curettage. The patient was recalled at regular intervals and no sign of recurrence was reported.

## REFERENCE

1. Mattoo K., & Garg, N. (2015). Capillary Hemangioma of Posterior Palatal Mucosa. *International Journal of Hematological Disorders*, 2(2): 29-30.

2. Singh P, Parihar AS, Siddique SN, et al. BMJ Case Rep. Published online: doi:10.1136 /bcr-2015-210948.
3. F. M. Enzinger and S.W Weiss, *Soft Tissue Tumors*, Mosby, St. Louis, Mo, USA, 5th edition, 2001.
4. W. G. Shafer, M. K. Hene, and B. K. Levy, *A Textbook of Oral Pathology*, WB Saunders, Philadelphia, Pa, USA, 1983.
5. W. Neville, D. D. Damm, C. M. Allen, and Bouqot Jr., *Oral & Maxillofacial Pathology*, WB Saunders, Philadelphia, Pa, USA, 2nd edition, 2002.
6. Acikgoz A, Sakallioğlu U, Ozdamar S, Uysal A. Rare benign tumours of oral cavity - capillary haemangioma of palatal mucosa: A case report. *Int J Paed Dent*. 2000; 10: 161–5.
7. Mulliken JB. Cutaneous Vascular Anomalies. In: McCarthy JG, editor. *Plastic Surgery: Tumors of Head and Neck and Skin*. Vol. 5. Philadelphia: B Saunders Company Ltd; 1990; 3194–230.
8. Chang J, Most D, Bresnick S et al. Proliferative hemangiomas: Analysis of cytokine gene expression and angiogenesis. *Plast Reconstr Surg*. 1999; 103: 1–9.
9. Rachappa MM, Triveni MN. Capillary hemangioma or pyogenic granuloma: A diagnostic dilemma. *Contemp Clin Dent*. 2010; Apr-Jun; 1(2): 119–122.
10. Shafer WG, Hine MK, Levy BM. *A Textbook of Oral Pathology*, 6th ed. Philadelphia: WB Saunders Co; 2009; 143.