University J Dent Scie 2021; Vol. 7, Issue 1

Oral capillary hemangioma mimicking gingival polyp: A Case Report

Abstract :
Hemangioma is a relatively common benign proliferation of blood vessels that primarily develops during childhood. Two main forms of hemangioma recognized: capillary and cavernous. The capillary form presents as a flat area consisting of numerous small capillaries. Cavernous hemangioma appears as an elevated lesion of a deep red color, and consists of large dilated sinuses filled with blood. The present case report is an presentation of gingival growth, which was clinically diagnosed as gingival polyp but histopathologically as capillary haemangioma. These lesions present as a diagnostic dilemma to the clinician and can lead to serious complications if not carefully managed. The purpose of the case report is to present the case of a capillary hemangioma in a patient and to describe the successful treatment of this case.

Key Words: excision, gingival polyp, hemangioma, intraoral capillary hemangioma

Introduction:

Hemangiomas, whether they represent a true neoplasm, malformation or hamartoma, have been the subject of continuous debate. Hemangioma was first described in the literature by 'Liston' in 1843. It is a benign tumor of infancy characterized by a rapid growth phase with endothelial cell proliferation followed by gradual involution. Clinically, hemangiomas are characterized as a soft mass, smooth or lobulated, sessile or pedunculated and may be seen in any size from a few mm to several cms.[1] The colour of the lesion ranges from pink to red or purple and tumor blanches on the application of pressure. It might even bleed spontaneously or after minor trauma. It is generally painless.[2] The incidence of intraoral capillary hemangiomas are extremely rare and it varies from 0.5-1.0% of all intraoral neoplasms, specially with the female predilection (ratio of 3:1) in second and third decades of life.[3] Here, we are presenting a case of capillary hemangioma with a rare clinical picture.

Case Report:

A 17 year old female patient with a painless swelling in the lower right back tooth region reported in the Department of Periodontology of Rama Dental College Hospital and Research Centre, Kanpur, India. The patient noticed a small growth on the interdental aspect of lower right second premolar region. No history of trauma or any long term medication was reported. Detailed dental, medical and family history was found to be non-contributory to the condition. Intraoral examination revealed well defined, non ulcerated growth, reddish pink in colour, irregular in shape and soft in consistency, present interproximally arising from the interdental papilla distal to right mandibular second premolar, covering decayed part of the crown of mandibular second premolar.[Fig.1] The lesion was approximately 0.5 x 0.2 mm in size. On correlating the clinical feature of the lesion with the location of the lesion i.e. adjacent to the carious aspect of tooth, lesion was clinically diagnosed as gingival polyp. On palpation, inspectory findings were confirmed. The lesion was soft in consistency, non-fluctuant, non-tender and irregular in shape. Slight bleeding was associated with no pus discharge. Blanching was revealed on examination.

The intraoral periapical radiograph (IOPAR) showed interdental bone loss.[Fig.2] Oral hygiene was fair with only mild amount of stains and calculus. So, oral prophylaxis was done. A thorough scaling and root planing was done to remove the local irritating factors and patient education was done regarding good oral hygiene maintenance. As the lesion was well localized, surgical excision was considered as the treatment of choice with the written consent of the

[1]GUPTA, D. I., [2]GUPTA, D. R., [3]SARKAR, D. S., [4]TRIVEDI, D. D.
[1,2,3,4,]Department of Periodontology, Rama Dental College Hospital and Research Centre, Kanpur,

Address for Correspondence : Dr. Ira Gupta
3A/206 , FLAT: 1-A, Ram Kutir Appartments,
Azad Nagar, Kanpur.
Email address:- driragupta@yahoo.co.in

Received : 9 Dec. 2020, **Published :** 30 April 2021

How to cite this article: Gupta, D. I., Gupta, D. R., Sarkar, D. S., & Trivedi, D. D. (2021). Oral capillary hemangioma mimicking gingival polyp: A Case Report. UNIVERSITY JOURNAL OF DENTAL SCIENCES, 7(1). 117 - 119

Access this article online

Website: www.ujds.in

Quick Response Code

DOI: https://doi.org/10.21276/ujds.2021.7.1.23

patient. After 1 week, excision of the growth along with the surrounding gingival tissue was done under local anesthesia. Thorough curettage was done and complete hemostasis was achieved.[Fig.3] It was provisionally diagnosed as gingival polyp. The excised specimen was sent for histopathological evaluation.[Fig.4] The patient was recalled after 7 days and the healing was uneventful.

The hematoxylin and eosin (H and E) stained soft tissue section revealed highly cellular stroma which was composed of numerous proliferating small thin walled blood vessels composed of single layer of flattened or plump endothelial cells, surrounded by discontinuous layer of pericytes and reticular fibres. The overlying epithelium was parakeratinized stratified squamous epithelium which shows acanthosis at places.[Fig.5] With these findings, capillary hemangioma was the final diagnosis.
Patient was recalled for periodic examination which revealed uneventful healing 1 month post-operatively[Fig.6] and no recurrence of lesion for the next 6 months was seen. Finally the root canal treatment of the involved teeth was done and prosthesis was placed.[Fig.7]

Discussion:

Hemangiomas are benign vascular tumors, classified into capillary and cavernous types. Though capillary hemangioma is a common soft tissue tumor of head and neck, its occurrence in the oral cavity is relatively rare. Intraorally, the location of capillary hemangioma has been mostly reported on hard palate[4,5] and attached gingiva[6] and rarely interdentally. In addition, confusion with other conditions can occur since hemangiomas may mimic other lesions clinically, radiographically and at times histologically.[3]

Similarly, in this rare case, growth was present interproximally arising from interdental papilla, which was a rare clinical picture of the lesion, where it was clinically diagnosed as gingival polyp, but after histopathological examination it was finally confirmed as capillary hemangioma. Gingival polyp is a common, non neoplastic soft tissue tumour of the oral cavity caused due to localized increase in the size of the gingiva. In some severe cases, the gums might completely cover the teeth, affecting hygiene and teeth alignment. It is a rare case report in which capillary hemangioma was mimicking gingival polyp.

Vascular anomalies of head and neck historically have confused clinician which has resulted in improper diagnosis and inappropriate treatment. The differential diagnosis of capillary hemangioma includes pyogenic granuloma[7], peripheral giant cell granuloma[8], peripheral ossifying fibroma[8], epulis granulomatosa and squamous cell carcinoma.

The classification of hemangioma is based on histological appearance, therefore histopathological assessment remains the most accurate and satisfactory means of diagnosis. The most common treatment of choice for hemangioma is surgical excision with or without ligation of vessels. The present case in the discussion is worthy of importance because of the uncommon clinical picture of capillary hemangioma that is encountered by dentists. In this case the lesion was neither painful nor symptomatic. Radiographs were advised to rule out malignancy and to identify the presence of any other foreign body which has to be removed along with the lesion.

In this case, surgical excision was selected as the treatment modality based on the provisional diagnosis of the gingival polyp, in addition to the lesion being small sized on presentation and submitted for histopathological examination. Usually, surgical excision of hemangiomas produce profuse bleeding but in this case minimal bleeding was encountered which might be due to the fact that hemangioma might not be in an active proliferative stage. The patient responded well to the treatment, and was kept on maintenance visit for 6 months. No recurrence is reported till date. Simultaneously, the endodontic and restorative treatment was done for the teeth.

Conclusion:

Capillary hemangiomas with such clinical picture are infrequently seen on the interproximal region and may be confused with different lesions, particularly with gingival polyp and irritational fibroma. Early detection and biopsy is necessary to determine the clinical behavior. Dental practitioners should be aware of the risks during diagnosis and management and should take necessary precautions during the treatment.

Figure 1: Pre-operative clinical

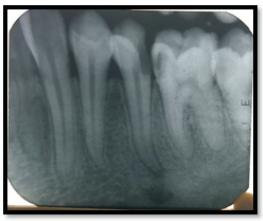

Figure 2:Pre-operative radiograph

Figure 3: Immediate post-operative

Figure 4: Excised tissue

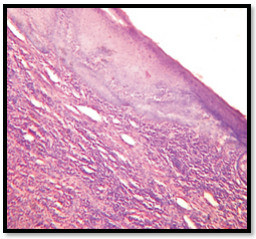

Figure 5: Histological section

Figure 6: Post-operative – 1 month

Figure 7: After root canal treatment and placement of prosthesis

References:

1) Mitra D, Dutta S, Paul J, Kumar N. Central capillary hemangioma of the maxilla: case report and a review of literature. The Saudi Journal for Dental Research. 2016;7(1):64-8.
2) Dilsiz A, Aydin T and Gursan N. Capillary hemangioma as a rare benign tumor of the oral cavity:a case report. Cases journal. 2009;2:8622.
3) Vasantha Kumari V R, Vallabhan C G, Geetha S, Nair M S, Jacob T V. Atypical presentation of capillary hemangioma in oral cavity- A case report. J Clinic and Diagnos Res. 2015;9(10):26-8.
4) Desai V, Narang P, Varma B, Maghu S. Unusual site of capillary hemangioma: Practitioner's dilemma, CHRISMED J Health and Res 2015;2:77-81.
5) Singh P, Parihar AS, Siddique SN and Khare P. Capillary haemangioma on the palate: a diagnostic conundrum. BMJ Case Rep. 2016.
6) Mishra M B, Bishen K A and Yadav A. Capillary hemangioma: An occasional growth of attached gingiva. J Indian Soc Periodontol. 2012; 16(4): 592–6.
7) Mulliken JB. Cutaneous vascular anomalies. In: Mccarthy JG edition. Plastic Surgery: Tumors of Head and Neck and Skin. Vol 5. Philadelphia: B Sauders Company Ltd. 1990. pp. 3194-230.
8) Wood NK, Goaz PW. Differential diagnosis of oral and maxillofacial regions. 5th edition. Mosby; 1997. pp 549-50.