



Lobular Capillary Hemangioma - A Case Report

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Abstract:

Pyogenic granuloma is a reactive lesion that presents as a tumor affecting the oral cavity. It can be a single, sessile or pedunculated nodular growth varying in color based on its vascular nature. Histologically, it can be classified into lobular capillary hemangioma and non-lobular capillary hemangioma. We present such a case of Lobular capillary hemangioma involving the mandibular gingiva in a 24-year-old female.

Keywords: *Lobular Capillary Hemangioma, Pyogenic Granuloma, Gingiva, Mandible*

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1. Introduction

The term pyogenic granuloma was given by Hartzell in 1904. [1] It presents as a tumor-like lesion though it is non-neoplastic in nature. This confusing terminology does not describe the lesion properly as it is not caused by bacterial infection nor it shows pus formation. [2] Akyol et al used the term – Lobular Capillary Hemangioma (LCH) for this lesion. [3]

It frequently involves the gingiva as a nodular growth. It can show slow or rapid growth. Early or Cellular phase, Established or Capillary/Vascular phase and Healing or Involutionary subtypes could be noted during the course of the lesion both clinically and in histopathology. The color could be pink or red based on its vascularity. Histopathology shows two types of

pyogenic granuloma – Lobular Capillary Hemangioma (LCH) and Non-LCH. [4]

In this case report, we present a case of LCH involving the mandibular gingiva of a female patient.

2. Case Report

A 24-year-old female patient reported to the outpatient department of Darshan Dental Clinic, Oral Cancer Diagnostic & Treatment Centre, Bhiwani complaining of the growth in the gums of her lower left back region for one month. History revealed that the growth had a gradual onset and increased slowly to attain the present size. Her medical, surgical and dental history was non-contributory.

Intra-oral examination revealed a solitary, pinkish-red, nodular, smooth-surfaced growth involving the gingiva of 36, 37 & 38 region. It was pedunculated and



bled on touch. (Figure 1) Intra-oral radiograph did not reveal any osseous changes. The lesion was provisionally diagnosed as Pyogenic granuloma.

Routine blood investigations were within the normal limits. Hence, the growth was excised under local anesthesia, fixed in 10% Neutral Buffered Formalin and sent for histopathological evaluation.

Histopathology revealed a nodular mass of fibrillar connective tissue with lobular aggregates of numerous vascular channels of varying diameter lined by plump endothelial cells. Focal collection of chronic inflammatory cells and areas of extravasated erythrocytes are noted. (Figure 2 & 3)

Correlating the clinical and histopathological findings, the final diagnosis was Lobular Capillary Hemangioma.

The patient is remaining disease-free on follow-up.

3. Discussion

Pyogenic granulomas in oral cavity show a 70% predilection for gingiva, especially the interdental papilla. [5] Capillary hemangiomas usually occur as single lesions, predominantly in females (3:1), slow development and asymptomatic. [6] Our case also presented as an asymptomatic growth in the mandibular gingiva of posterior region of a young female.

LCH type of pyogenic granuloma shows proliferating blood vessels organized into lobular aggregates without much variations in edema, dilation of capillaries or inflammation. It also has an attenuated endothelial lining surrounded by almost uniform proliferation of plump to spindle cells. Non-LCH subtype shows vascular proliferation resembling granulation tissue and foci of fibrous maturation. A capillary hemangioma shows more prominent

endothelial cells with numerous capillary sized blood vessels in lobular architecture [5, 7]

Differential diagnosis of such vascular lesions includes peripheral giant cell granuloma, peripheral ossifying fibroma, epulis, Kaposi's sarcoma and metastatic cancer. [8] These lesions could be ruled out only with histopathological confirmation.

Conventional surgical excision is the treatment of choice for smaller lesions. Other options include electrosurgery, Nd:YAG laser, CO2 lasers and cryosurgery. [9] Our patient was also treated with surgical excision under local anesthesia and is remaining disease free on follow-up.

4. Conclusion

The clinical diagnosis was a pyogenic granuloma but histology proved it to be a lobular capillary hemangioma. Appropriate treatment is mandatory for such vascular lesions to avoid intra-operative or post-operative bleeding.

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Figures & Legends:



Figure 1: Clinical picture showing the pinkish-red lesion involving the gingiva in mandibular molar region

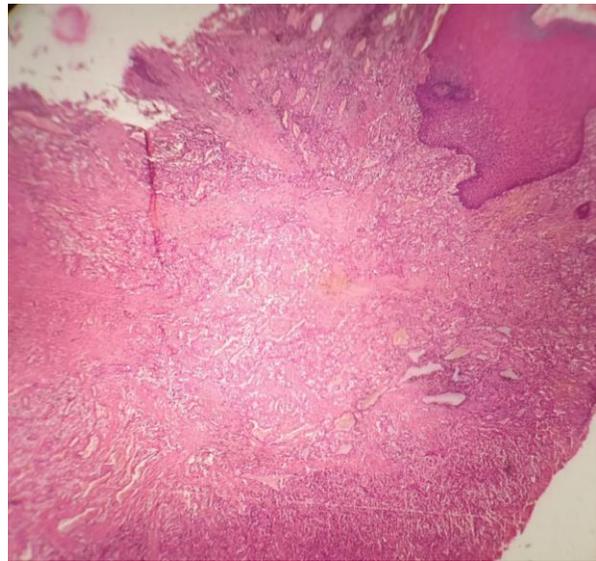


Figure 2: Photomicrograph showing the vascular connective tissue with lobular aggregates, extravasated erythrocytes and focal inflammation (H & E, 20x)

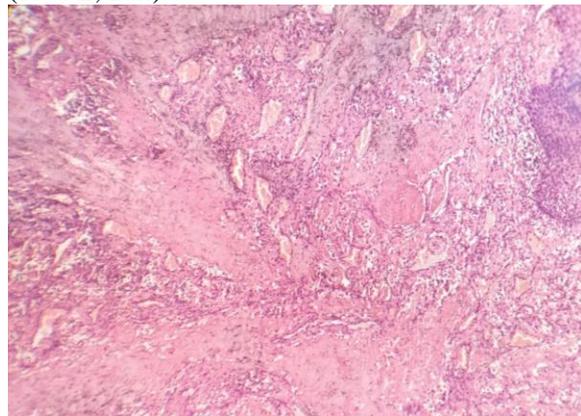


Figure 3: Photomicrograph showing lobular aggregates of vasculature of varying diameter along with focal inflammation and congestion (H&E, 40x)