

Case Report

Telangiectic Granuloma: A Case Report

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ABSTRACT:

Telangiectic (Pyogenic) granuloma is a reactive hyperplasia of connective tissue in response to various stimuli as low-grade local irritation, traumatic injury, hormonal factors or certain kinds of drugs. Histologically, the surface epithelium may be intact or may show foci of ulceration or even exhibiting hyperkeratosis. It is a mass of dense connective tissue composed of significant amount of mature collagen. Anterior gingiva is the most common site affected followed by buccal mucosa, tongue, lips. Pyogenic granuloma in general, does not occur when excised along with the base and healthy tissue. This paper presents a case of a pyogenic granuloma managed by surgical intervention.

Keywords: Pyogenic Granuloma, Peripheral Giant Cell Fibroma, Irritational Fibroma

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INTRODUCTION

The term pyogenic granuloma is a misnomer because the lesion does not contain pus and is not strictly speaking a granuloma. Approximately 1/3rd of lesions occur due to trauma and poor oral hygiene may also be one of the precipitating factors. Pyogenic granuloma is a benign lesion that occurs in skin and mucous membrane as inflammatory hyperplasia. It is also called vascular epulis, hemangiomas granuloma. Clinically, it presents as a sessile/pedunculated with a smooth or lobulated surface. It is erythematous can bleed easily and is non-painful to palpate. It is more commonly appears in females than males with a ratio of 2:1. Peak incidence of pyogenic granuloma is in the 2nd decade. The diagnosis is based upon biopsy and histopathological assessment.

CASE REPORT

A 57yrs old female patient came to department of oral medicine and radiology, St. Joseph Dental College, Duggirala, Eluru, with a complaint of growth in the upper front teeth region since 1 year. Patient gives history of growth present in the last 3 years and underwent surgical removal in the private clinic and

the growth was again started in the last 1 year. Patient gives no history of pain, history of bleeding while brushing; patient gives history of diabetes and under medication since 10 years. On extraoral examination, no apparent swelling was present. An intraoral examination revealed that, on inspection, a solitary diffused growth seen in upper front teeth region of size approximately 2X2 cm extending Antero-Posteriorly from mesial aspect of 21 region to mesial aspect of 12 region; Superio-inferiorly involving marginal gingival of 11 region to 0.5mm below the vestibule. Color of lesion is erythematous and blanched on palpation, all inspeactory findings are confirmed. Swelling is non-tender, firm in consistency, smooth in texture, non-compressible, non-reducible, sessile, no pus or blood discharge are evident on palpation. As chair side investigation, diascopy was performed which shows blanching. Clinical diagnosis was given as peripheral giant cell granuloma and the differential diagnosis was given as pyogenic granuloma and hemangioma. Treatment plan was discussed with the patient. She was advised to have an excisional biopsy of the lesion. An excisional biopsy was performed under LA and it was sent to the histopathology laboratory. Investigations advised for

this case are complete blood count & random blood sugar test. A maxillary anterior occlusal radiograph was taken to see the presence of any calcifications and

the radiographic examination reveals periodontal abscess associated with 11 and then advised for Excisional Biopsy (Figures 1-5).




Figure 1: Showing Blanching



Figure 2: Shows the growth involving the upper front teeth region



Figure 3: Radiographic View



ST. JOSEPH DENTAL COLLEGE AND HOSPITAL

DUGGIRALA, ELURU

HISTOPATHOLOGY REPORT

PATIENT NAME: V.LAKSHMI

AGE: 57 YEARS

SEX: FEMALE

BIOPSY NO:23/24

REFERENCE: DR.M.S.RAJU

DEPARTMENT: OMR.

SPECIMEN RECEIVED ON:19/03/24

REPORT DISPATCHED ON:28/03/24

MACROSCOPIC FEATURES:

Received a soft tissue bit measuring of 2.0x0.9x0.4cm size, oval in shape, creamish brown in color, firm in consistency with irregular borders.

HISTOPATHOLOGIC FEATURES:

The given H&E stained section shows hyperplastic parakeratinized stratified squamous epithelium. Underlying Connective tissue is dense and fibrous consisting of fibroblasts, endothelial lined blood capillaries, sparse chronic inflammatory infiltrate. These features are suggestive of healing pyogenic granuloma.

HISTOPATHOLOGICAL DIAGNOSIS: HEALING PYOGENIC GRANULOMA .




 SIGNATURE OF PATHOLOGIST
 Dr. A. ANURADHA

Figure 4: Histopathology Report



ST. JOSEPH GENERAL HOSPITAL

Duggirala, Andhra Pradesh 534003

LABORATORY REPORT

Patient Name : Mrs . LAKSHMI V

OP Reg No : OP4410011079

Referred By : Dr.ORAL MEDICINE AND RADIOLOGY

Reported On : 19-03-2024 12:55 PM

Age / Gender : 57Y / Female

Lab Order No : 20240319-149

Req Date : 19-03-2024 12:46 PM

Printed Date : 19-03-2024 12:57 PM

Test Name	Result	Units	Reference Range
DEPARTMENT OF HAEMATOLOGY			
COMPLETE BLOOD PICTURE			
Hemoglobin	12.8	gm%	Male : 12.0 – 18.0 gm % Female: 11.0 – 16.0 gm %
RBC count	4.74	mill/cumm	3.5 - 5.5 mill/cumm
PCV	39.2	PERCENTAGE	40-50%
MCV	82.7	FEMTO/LITERS	80-100FL
MCH	27.0	PICO/GRAMS	27-32Pg
MCHC	32.7	GRAM/DESI LITERS	32-34g/dl
RDW	12.0	PERCENTAGE	11.6-14.0%
Platelet Count	4.21	Leks /cumm	1.5—4.5Lakh/cumm
Total WBC count	11.39	cumm	4,000 – 11,000/cumm
DIFFERENTIAL COUNT			
Neutrophils	72	%	55 – 70%
Lymphocytes	23	%	25 – 40%
Eosinophils	01	%	01 - 05%
Monocytes	04	%	02 – 06%
Basophils	00	%	00 – 01%
BT CT			
Bleeding Time	1 MIN 10 SEC		1 - 3 minutes
Clotting Time	3 MIN 35 SEC		3 - 7 minutes
DEPARTMENT OF IMMUNOLOGY			
HIV			
HIV I	NON REACTIVE		
HIV II	NON REACTIVE		
HBs Ag			
HBs Ag	NEGATIVE		
DEPARTMENT OF BIO-CHEMISTRY			
GRBS			
G. RANDOM BLOOD SUGAR	192	mg/dl	60 - 160 mg/dl
Method :Glucometer			

Figure 5: Laboratory Report

DISCUSSION

Pyogenic granuloma is characterized clinically as pale pink vascular mass that can be smooth or lobulated & either sessile/pedunculated. It tends to bleed & it

becomes ulcerated in sites subjected to trauma. The lesion can slowly increase in size, varying from few mm's to several cm's. However, the lesion usually does not exceed 2.5cm in size. The most common site

of occurrence is gingival, accounting 75% of cases, followed by lips, tongue, palate & buccal mucosa. It is more frequently found in maxilla & mandible and in the anterior region compared to posterior. Histopathological examination recommended to confirm the diagnosis of as pyogenic granuloma. The histopathological examination of pyogenic granuloma reveals distinctive characteristics of the lesion; it includes a highly vascular proliferation resembling granulation tissue, with the formation of multiple channels of varying sizes. These channels are engorged with red blood cells and are lined with endothelium, sometimes exhibiting a lobular organization. Additionally, there is evidence of an inflammatory cell infiltrate consisting of neutrophils, plasma cells, and lymphocytes. Pyogenic granuloma is further subdivided into lobular capillary hemangioma (LCH) and non-lobular capillary hemangioma (non-LCH) varying in the histopathological features in which the LCH type consists of proliferating blood vessels arranged as lobular aggregates whereas the non-LCH type consists of highly vascular proliferation mimicking granulation tissue with mitotic activity that could be seen in the stromal cells in the two types. Radiographic examinations typically do not reveal any specific features related to pyogenic granuloma. However, in rare instances, long-standing gingival pyogenic granuloma can lead to localized alveolar bone loss. Moreover, some cases exhibit significant bone loss that resembles malignancy. In our case, a biopsy, along with an intraoral radiograph was conducted to confirm the diagnosis and identify any bone destruction. The usual treatment for pyogenic granuloma is conservative surgical excision. During the excision, it is important to extend the removal to the depth of the periosteum and include adjacent teeth in the periphery. Additionally, any irritants such as calculus or foreign material should be removed. Other treatment modalities that include cryotherapy, cauterization, and laser therapy. The prognosis for pyogenic granuloma is generally favorable. The recurrence rate is approximately 16% and often occurs due to factors like incomplete removal, untreated

underlying causes, or repeated irritation and trauma.¹⁻⁵ Lesions removed during pregnancy have a higher recurrence rate due to hormonal effects. In the absence of esthetic or functional issues, surgical treatment is not recommended as some lesions tend to resolve after delivery. Pregnant women should maintain oral hygiene and attending regular follow-up appointments. However, any surgical interventions should be carefully done.

CONCLUSION

Pyogenic granuloma is a benign inflammatory reactive hyperplasia that is commonly found on the anterior gingiva of the maxilla with a wide age range of occurrence but frequently with females in their second and third decades. Pregnant women have an increased risk of developing pyogenic granuloma, which is also known as pregnancy tumor. The golden standard diagnostic investigation is histopathological examination. Surgical excision is the most common treatment approach with a low recurrence rate. Surgical excision of the lesion during pregnancy can increase the risk of recurrence. However, the lesion could be removed in cases of functional or esthetic concern.

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