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Research Paper

A bizarre presentation of pyogenic granuloma-A case update

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ABSTRACT:- *Pyogenic granuloma (PG) also known as capillary haemangioma is common reactive inflammatory hyperplasia of oral cavity. It clinically appears more like an angiomatous growth than a granulomatous lesion. The name given to pyogenic granuloma is quite a misnomer as it is not accompanied by frank pus release. It is similar to a tumour like growth of the oral cavity but is non-neoplastic in nature. As it presents in a range of clinical and histological types, sometimes the patient consults to the specialist due to fear of malignancy. The most common location in oral cavity is maxillary anterior gingiva, though it can be seen on lips, tongue or buccal mucosa as well. It shows slight predilection for females. The treatment is surgical removal of lesion & periodic follow-ups. The case presented here is a unique case of pyogenic granuloma in a male patient with unusual location and presentation.*

Keywords:- Reactive inflammatory hyperplasia, pyogenic granuloma, bening tumor, irritation

I. INTRODUCTION

Oral mucosa demonstrates a range of irritation, inflammation, developmental disorders and neoplastic conditions as it is continuously under the pressure of various internal and external stimuli. [1] Pyogenic granuloma is classified as a form of reactive inflammatory hyperplasia. Other lesions include irritational fibroma, epulis fissuratum, pulp polyp, giant cell granuloma etc. Reactive lesions show tumor-like hyperplasias in response to a slow, constant & long standing irritation or injury. The source of these irritation includes calculus , overhanging dental restorations, extended flanges of denture, food impaction & broken teeth, etc. [2] In English literature first case of pyogenic granuloma was submitted by Hullihen in1844.[3] The current name of "pyogenic granuloma" or "granuloma pyogenicum was set by Hartzell in 1904, which by the honorary of name of scientist also entitled as Crocker and Hartzell's disease.[4] PG was originally thought to be a botryomycotic infection which is a infection of horse & is transmitted in man, But succeeding research had proved it to be a infection caused by either staphylococci or streptococci.[5] There is debate on name given to PG & they say it is a misnomer because the lesion does not hold pus and is not firmly speaking a true granuloma. In this case report we have presented a case of a large pyogenic granuloma with unusual location & presentation in a 29 years old male patient. He presented with a localized tumor like enlargement of gingiva in the upper right posterior region of the jaw extending over soft palate.

II. CASE REPORT

A 29 years old patient (Figure 1) reported to department of oral medicine & radiology with chief complaint of a mass in his upper right back region of jaws since 15 days. Detailed case history revealed that he was alright 4-5 months back when he started experiencing food lodgment & bleeding while brushing in his upper right back region of jaw. Since 1 month he started experiencing pain in same region. Pain was dull aching and intermittent in type which was aggravated on mastication & relieved on taking analgesic medication. Since 15 days he noticed a growth in same region which was initially small in size & gradually increased to present size. Patient also noticed swelling on right side of his face. Patient also experienced paresthesia over palate &

buccal mucosa around the lesion. There was no history of trauma, fever, cough, weight loss, loss of functions etc. Patients past medical & dental history were not significant. No deleterious habits were present. Extra Oral Examination showed gross facial asymmetry due to swelling on right side of face (Figure 2), which was approximately 8x10cm in size, roughly oval in shape. Temperature of the swelling was raised; swelling was soft in consistency and tender on palpation. A single right side submandibular lymph node was palpable; it was soft in consistency, non tender & movable. Intraoral examination showed Grade III mobile 17 & Grade II mobile 16. Patient's oral hygiene was poor with stains, calculus & gingival recession. A single well defined, lobulated, sessile, exophytic , pinkish red growth (Figure 3) was seen involving right posterior region of jaw. The size of the lesion was approximately 3x4cm , extending anteroposteriorly from distal aspect of 15 covering maxillary tuberosity & mediolaterally 2cm away from midline on palate slanting over palatal mucosa of 16, 17 & extending till right buccal vestibule & also obliterating it (Figure 4). On palpation , the lesion was soft to firm in consistency, non tender on palpation & bleeding & pus discharge noted on slight touch. Provisional diagnosis of irritational fibroma was made based on clinical findings. List of differential diagnosis considered was pyogenic granuloma, peripheral giant cell granuloma, peripheral ossifying fibroma , inflammatory localised gingival enlargement & malignancy.

Investigations: Radiographic investigations like IOPA (Figure 5), OPG (Figure 6) was carried out which shows severe bone loss resembling floating tooth appearance in relation with 17 teeth. Blood investigations like complete blood count, BT/CT, BSL was taken into consideration which were within normal range except for slight decrease in Heamoglobin (13.7 gm) & slight inrease in WBC count (11300/ cumm).

Treatment: Excisional biopsy was done (Figure 7), with 16, 17 extracted (Figure 8) & mass is sent for histopathologic diagnosis.

Histopathology report: H & E section showed stratified squamous epithelium showing archading pattern. Underlying connective tissue was showing loosely arranged collagen fiber bundles & abundance of capillaries with infiltration of chronic inflammatory cells. Based on these findings histopathologic diagnosis of pyogenic granuloma was made **(**Figure 9).

III. DISCUSSION

Pyogenic granuloma as the name suggest, was originally thought to be related to infectious process, but the further research had proved as it is caused by chronic irritation and not a true granuloma as well. Clinically it presents itself as tumor like growth which is smooth & lobulated. It can be sessile or pedunculated. [6] Due to continuous irritation & trauma colour of lesion ranges from pink to red to purple & it depends on chronicity of lesion. The surface of swelling appears as ulcerated & can show bleeding or pus discharge to slight touch, as seen in our case. Size of pyogenic granuloma varies, it can be as small as few millimeters to as large as few centimeters. The most common site of occurrence is anterior maxillary gingiva though it can occur anywhere in oral cavity. It has female predilection. Hormonal imbalance during pregnancy can cause similar presentation which is termed as pregnancy tumor or pregnancy epulis.[7] They are usually asymptomatic unless they attain a considerable size. Clinical diagnosis is enough to rule out other similar lesions but ultimate diagnosis is made by histopthologic confirmation only. Radiographic investigations aids in evaluating the extent of bone loss & to detect any sharp foreign object or irritating substance which which can act as a source of irritation and should be removed along with the lesion to avoid the recurrence. Although surgical removal of lesion is treatment of choice, some additional treatment procedures are also being carried out such as intralesional injection of corticosteroid [8] and sodium tetradecyl sulfate sclerotherapy[9], Nd:YAG laser, cryosurgery, electrodessication.[4] Recurrence of lesion can occur if lesion is not completely removed or if source of chronic irritation is not eliminated. Literature has given 16%[10] recurrence rate in excised lesions of pyogenic granuloma hence long term follow up of the patient is necessary .

IV. CONCLUSION

Although pyogenic granuloma is a non malignant lesion, it can take unsual size & can be present on uncommon locations which can be a diagnostic dilemma to general practitioners. Therefore proper diagnosis from an experts, relevant investigations & assurance of patients regarding the nature of condition is required. Complete excision of lesion along with source of irritation is must to avoid recurrence of lesion. Patients should be well instructed for maintaining good oral hygiene & for routine follow ups.

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FIGURES:

FIGURE 1: Profile picture

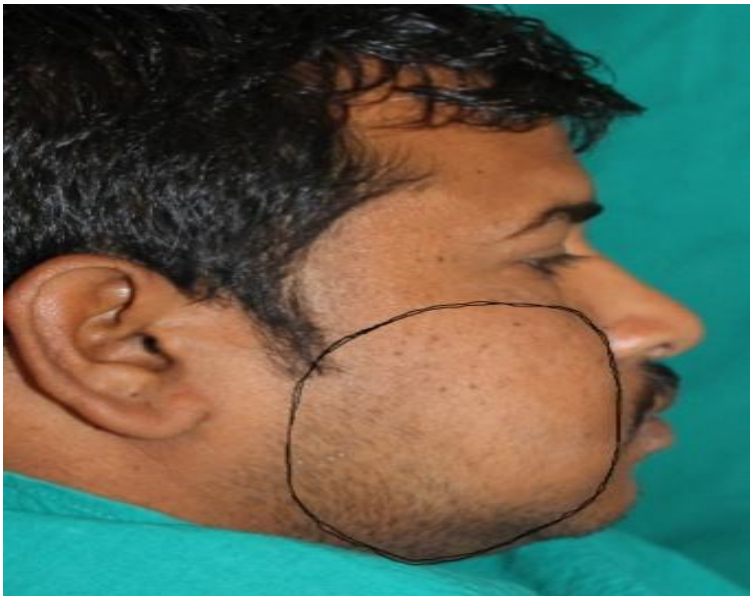

FIGURE 2: Extraoral swelling

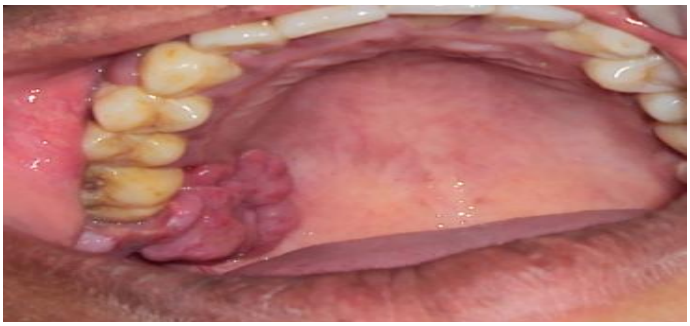

FIGURE 3: Intraoral lesion

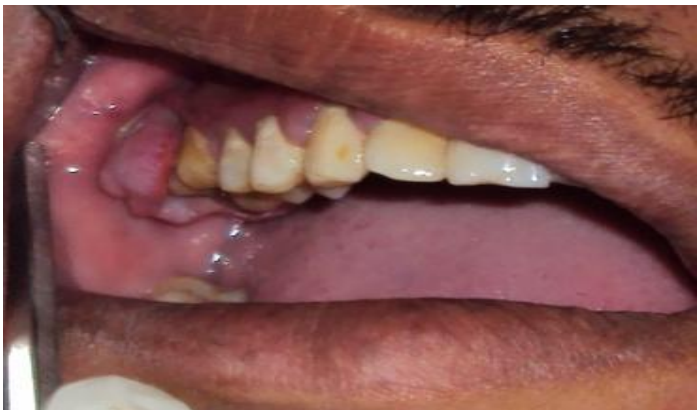

FIGURE 4: Lesion obliterating buccal vestibule

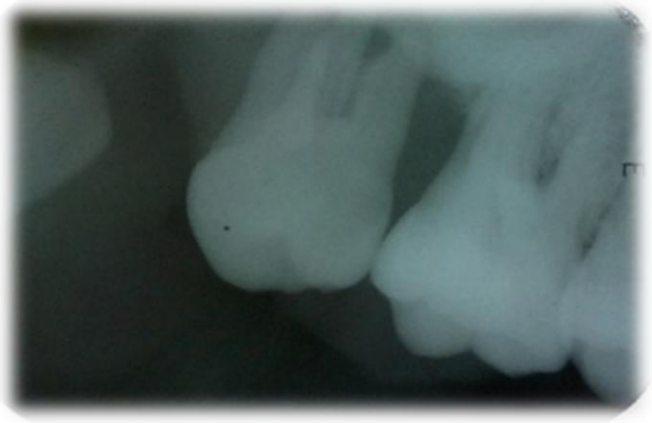

FIGURE 5: Intraoral periapical radiograph

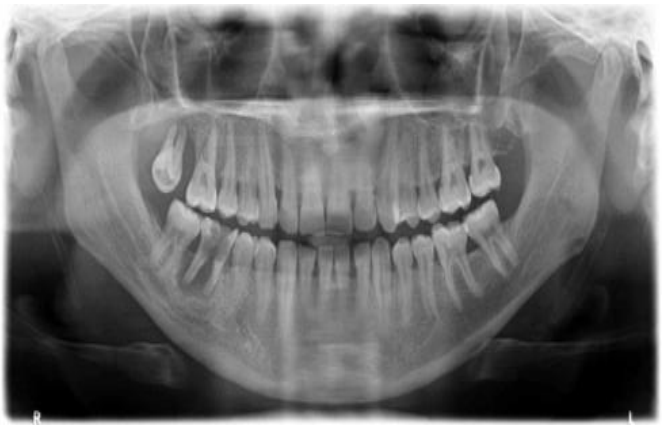

FIGURE 6: Panoramic radiograph

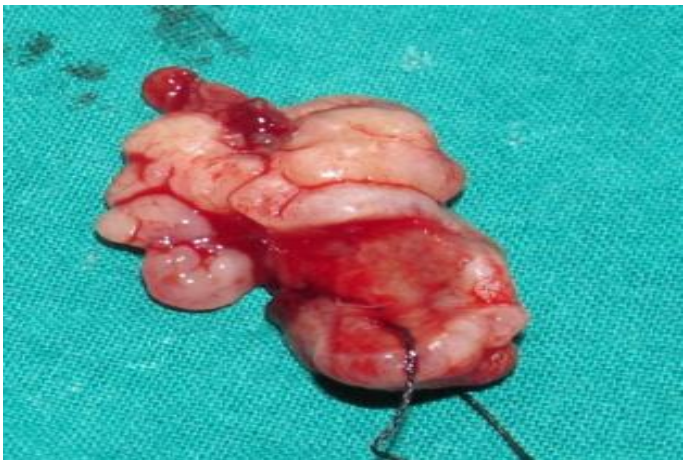

FIGURE 7: Excised specimen

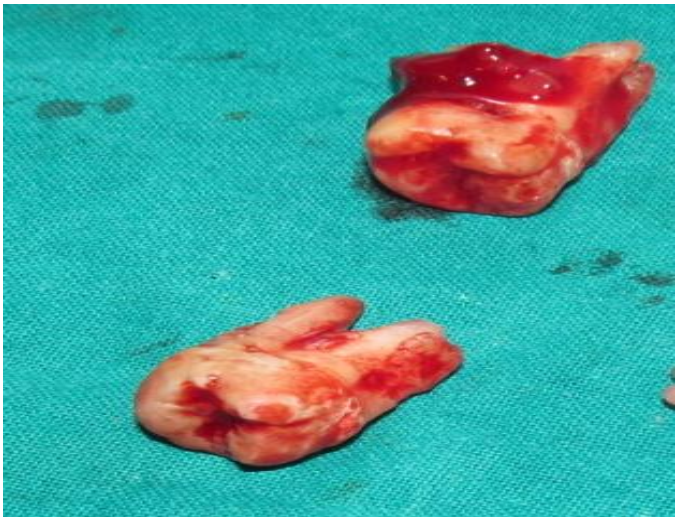

FIGURE 8: Extracted teeth

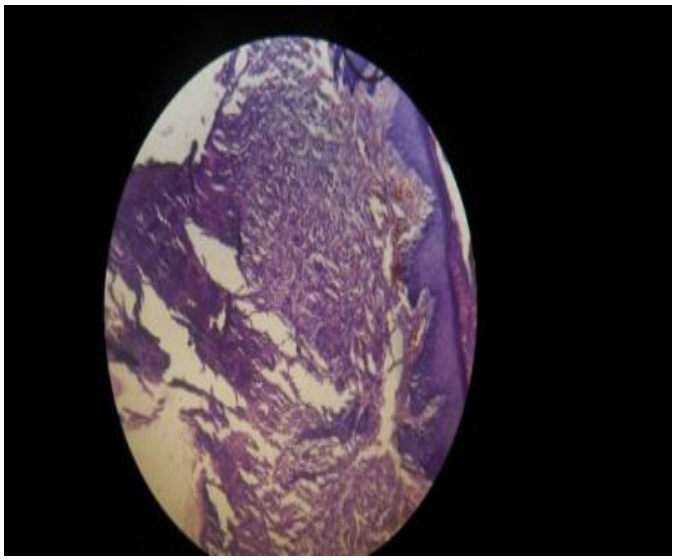

FIGURE 9: Histopathology picture