

Peer Review File

Article information: <http://dx.doi.org/10.21037/fomm-20-41>

Our responses to the reviewer's comments are given as follows:

For Reviewer #1:

Comment 1: The title seems to be rather uncomplete. The last sentence should be "A case report" very probably

Reply 1:

Thank you for your comments. There are some mistakes when we uploaded the manuscript and converted it into PDF thus the "report" was missing. We have revised the format of title. Please see the changes in the TITLE.

Comment 2: Proper periodontal diagnosis is missing. That's why bone resorption around the tooth 21 remains of unknown origin but much more presumably associated with periodontitis than benign tumor originating from the soft tissue.

Reply 2:

We would like to express our sincere thanks to you for the constructive comments. Considering the suggestion, we have added the periodontal diagnosis and clinical differential diagnosis in the CASE PRESENTATION. (Please see the changes in yellow: Page 5, line 109-113)

Comment 3: The term "gingival overgrowth" used for pre-operative diagnosis is vague. No suspicion for tumorous or tumoriform lesion was mentioned, regardless of the good response to local antiinflammatory periodontal therapy? The explanation of the good response of the tumorous lesion should be clarified.

Reply 3:

Thank you for your good suggestion. Considering the suggestion, we have revised the term "gingival overgrowth" into "gingival mass". We have added "tumorous or tumoriform lesion" as one of clinical differential diagnosis in the CASE PRESENTATION. Also, we have added the explanation of the good response of the tumorous lesion in the DISCUSSION.

Comment 4: Values of pre- and post-operative gingival recession are missing. Its

knowledge is obligatory for the evaluation of the result of the therapy. Values of CAL and PD are not quite sufficient in this situation. Clinical photographs are not sufficient, as well.

Reply 4:

We would like to express our sincere thanks to you for the constructive comments. Considering the valuable suggestion, we added the values of pre- and post-operative gingival recession in the clinical examination. It is with great regret that we did not have more clinical photographs like full photos with complete dentition. We would attach great importance to collect sufficient clinical information in the future studies. (Please see changes in the CASE PRESENTATION in yellow: Page 5, line 105-196; Page 6, line 124-125; Page 7, line 144)

Comment 5: The vitality of the pulp is not mentioned.

Reply 5:

Thank you very much for your valuable suggestion. We have added the information about the vitality of the pulp. (Please see changes in the CASE PRESENTATION in yellow: Page 5, line 105-106)

Comment 6: Women's predilection on the PCG is questionable, I contradiction with other literary sources.

Reply 6:

Thank you so much for your good comments. Literature reviewed shows that intraoral PCG occurs in a wide age range of 19 months to 63 years, but most of the cases of gingival PCG are observed in 4th and 5th decades of life and there is a slight female predominance [1-2]. However, Gulati et al^[3]. reported that there is no sex and age predilection associated with PCG. In conclusion, the description of "This disease frequently affects women aged 40-50 years" were not correct in previous manuscript. We have deleted this sentence.

【Reference】 :

[1] Pandav AB, Gosavi AV, Lanjewar DN, Jagadale RV. Gingival plasma cell granuloma. Dent Res J. 2012;9(6):816-20.

[2] Shek AW, Wu PC, Samman N. Inflammatory pseudotumor of the mouth and maxilla. J Clin Pathol. 1996;49:164-7

[3] Gulati R, Ratre MS, Khetarpal S, Varma M. A Case Report of a Gingival Plasma Cell Granuloma in a Patient on Antihypertensive Therapy: Diagnostic Enigma. *Front Dent.* 2019;16(2):144-148.

Comment 7: The name of the producer of the Primacain™ adrenaline is missing.

Reply 7:

Thank you for your comments. We have added the name of the producer of the Primacain™ adrenaline. Please see the changes in the CASE PRESENTATION. (Page 6, line 120)

Comment 8: Therapeutic use of an antibiotics in this situation is not common. How was it justified? Surgical prophylaxis in contemporary defensive medicine era? The use of the CHX rinse 3 times per day is uncommon because of rising adverse effects without therapeutical benefit, what was the reason?

Reply 8:

Thank you very much for your valuable comments. It is crucial for the dentists to know the indications, contraindications, undesirable effects, and dosage of the antimicrobial agent before prescribing it to their patients. Reports have advocated postoperative antibiotics to reduce pain, swelling, and to improve wound healing and treatment outcomes^[1]. Matthews et al.^[2] reported that mucogingival surgeries were associated with an increase of 3.5 times more pain and discomfort than other periodontal surgeries. Longer duration of surgery and bone exposure resulting in excessive postoperative inflammatory response may be the two reasons that increase postoperative pain and discomfort in these surgeries. Furthermore, Oswal et al.^[3] reported that subjects experienced less pain when prophylactic antibiotics were given. Although two randomly controlled clinical studies suggested that antibiotic administration is not required after routine periodontal surgery as the prevalence of postoperative infections is <1%. But the patients who included in these studies were systemically healthy patients. For this patient, she had medical history included hypertension without medication (140/90 mmHg). This conclusion may cannot be suitable for her. Ruchi et al.^[4] showed a case of PCG in a hypertensive patient and also prescribed antibiotics and analgesics after surgery. Therapeutic use of an antibiotics in this case are more used for decreasing discomfort and pain^[5].

Biofilm management and infection control are essential after periodontal surgery.

Chlorhexidine rinsing helps to reduce biofilm formation and gingival inflammation after surgery. A systematic review evaluated the efficacy of chlorhexidine rinses after periodontal surgery. It concluded that CHX may represent a valuable chemo-preventive tool immediately after surgery, during the time period in which oral hygiene capacity is compromised. To reduce the side effects of CHX and maintain comparable clinical effects, rinsing with less concentrated formulations (e.g., 0.12%) showed the most promising results so far^[6].

【Reference】 :

- [1] Laskin DM, Dent CD, Morris HF, Ochi S, Olson JW. The influence of preoperative antibiotics on success of endosseous implants at 36 months. *Ann Periodontol.* 2000; 5:166–74
- [2] Matthews DC, McCulloch CA. Evaluating patient perceptions as short-term outcomes of periodontal treatment: A comparison of surgical and non-surgical therapy. *J Periodontol.* 1993; 64:990–7.
- [3] Oswal S, Ravindra S, Sinha A, Manjunath S. Antibiotics in periodontal surgeries: A prospective randomised cross over clinical trial. *J Indian Soc Periodontol.* 2014;18(5):570-4.
- [4] Gulati R, Ratre MS, Khetarpal S, Varma M. A Case Report of a Gingival Plasma Cell Granuloma in a Patient on Antihypertensive Therapy: Diagnostic Enigma. *Front Dent.* 2019;16(2):144-8.
- [5] Abu-Ta'a M, Quirynen M, Teughels W, van Steenberghe D. Asepsis during periodontal surgery involving oral implants and the usefulness of peri-operative antibiotics: a prospective, randomized, controlled clinical trial. *J Clin Periodontol.* 2008;35:58–63.
- [6] Solderer A, Kaufmann M, Hofer D, Wiedemeier D, Attin T, Schmidlin PR. Efficacy of chlorhexidine rinses after periodontal or implant surgery: a systematic review. *Clin Oral Investig.* 2019;23(1):21-32.

Comment 9: The root coverage together with the removal of an suspected gingival lesion of an uncertain biologic nature is very questionable, regardless of the citation No. 18.

Reply 9:

Thank you very much for your comments. Under normal circumstances, the root

coverage together with the removal of a suspected gingival lesion of an uncertain biologic nature is not very appropriate. However, in our case, a provisional diagnosis of PCG combined periodontitis was made based on the typical clinical findings. Radiologically the lesion did not show infiltrative margins like a malignant tumor. PCG in the oral cavity is usually benign and simple excision of the lesion is curative^[1]. Consideration of the age and the tolerance to operation, a combination treatment of root coverage together and biopsy might provide superior clinical effectiveness. A second surgery to cover the exposed root due to biopsy was not necessary again. It decreases the burden on the body and economic of the patient.

【Reference】 :

[1] Pandav AB, Gosavi AV, Lanjewar DN, Jagadale RV. Gingival plasma cell granuloma. Dent Res J (Isfahan). 2012;9(6):816-820.

Comment 10: A picture of the typical histological finding would be appreciated.

Reply 10:

Thank you very much for your comments. The typical histological presentation of PCG includes proliferation of benign spindle mesenchymal cells in a loose myxoid and fibrocollagenous stroma along with dense infiltrate of chronic inflammatory cells predominantly containing plasma cells. Immunohistochemistry for kappa and lambda light chains showed a polyclonal staining pattern. We have revised the picture of Histological results. Please see the changes in Figure 4.

Comment 11: Some of pictures in Fig. 1, Fig. 2, are abundant.

Reply 11:

Thank you very much for your good suggestions. Considering the suggestion, we have deleted redundant pictures in Fig. 1 and Fig. 2. Please see the changes in Figures.

Comment 12: The term used "pterygioid maxilla" (page 3) sounds unusually, is it correct?

Reply 12:

Thank you very much for your valuable comments. We are so sorry for this mistake. We have corrected this term as "temporal bone" (See changes in the INTRODUCTION in yellow: Page 3, line 58)

【Reference】 :

Nam BH, Rha KS, Yoo JY, Park CI, authors. Plasma cell granuloma of the temporal bone: A case report. *Head Neck*. 1994; 16:457–9.”

The specific changes based on good suggestions given by reviewer 1 are as follows:

1. In the title, “A case report” was added.
2. In the abstract and case presentation section, Page 2 line 37 and Page 4 line 95, "gingival overgrowth" was replaced by “gingival mass."
3. In the introduction section, Page 3 line 58, "pterygioid maxilla" was replaced by "emporal bone".
4. In the introduction section, Page 3 line 62, “This disease frequently affects women aged 40-50 years(5).” was removed.
5. In the case presentation section, Page 5 line 99-100, "No gingival recession were observed in #11, #12, and #21.” was added.
6. In the case presentation section, Page 5 line 105-106, "#11, #12 and #21 showed the same responses as the normal control teeth to electric pulp vitality test.” was added.
7. In the case presentation section, Page 5 line 109-113, " Based on the medical history and clinical features, provisional diagnosis of plasma cell granuloma and periodontitis (Stage III, Grade B, Generalized) were made. The clinical differential diagnosis included fibroma, peripheral giant cell lesion, and plasmacytoma.” was added.
8. In the case presentation section, Page 6 line 124-125, “Gingival recession was observed after full-month subgingival scaling (#21:3.5mm; #11: 0.5mm).” was added.
9. In the case presentation section, Page 6 line 128, “Produits Dentaires Pierre Rolland” was added.
10. In the case presentation section, Page 7 line 144, “The gingival recession in #21 was 1.5 mm and #11 was 0 mm” was added.
11. In the discussion section, Page 8, line 175-176, “Some authors have suggested PCG as a hyper-reactive lesion to long-standing periodontitis” was added.
12. In the discussion section, Page 8, line 177-181, “In addition, the patient was accompanied by periodontitis (Stage III, Grade B, Generalized). The bone resorption around #11 and #21 are more presumably associated with periodontitis than GPCG. Part of gingival mass might be tissue edema caused by periodontal inflammation. It could explain why this tumorous lesion responded well after periodontal initial therapy.” was added.

13. In the Figures, Fig 1B, 1C, 1D,2C, 2D, 4A,4D,4E,4F were removed.

For Reviewer #2:

Comment 1: I encourage the Authors to consider the possible point of interest:

- clinical presentation and differential diagnosis
- invasive surgery prior to histological definition

Reply 1:

We would like to express our sincere thanks to you for the constructive comments. Considering the suggestion, we have added the clinical differential diagnosis in the CASE PRESENTATION and DISCUSSION. Also, we added the discussion about invasive surgery prior to histological definition. Please see changes in the CASE PRESENTATION and DISCUSSION in yellow.

The specific changes based on good suggestions given by reviewer 2 are as follows:

1. In the case presentation section, Page 5 line 109-113, " Based on the medical history and clinical features, provisional diagnosis of plasma cell granuloma and periodontitis (Stage III, Grade B, Generalized) were made. The clinical differential diagnosis included fibroma, peripheral giant cell lesion, and plasmacytoma." was added.
2. In the discussion section, Page 8, line 163-173: " The differential diagnosis in this case included fibroma, peripheral giant cell lesion, and plasmacytoma. Fibroma of gingiva is characterised histologically by broad interlacing fascicles of mature fibroblasts with a variable degree of collagenization(15). The peripheral giant cell granuloma is a benign lesion induced by local chronic irritation. The lesions are non-encapsulated proliferations of oval and spindle-shaped mononuclear cells (MCs) and multiple multinucleated giant cells (MGCs) in a vascular supporting stromal tissue, associated with foci of hemorrhage(16). Plasmacytoma presents diffuse sheets of neoplastic, variably differentiated, and monoclonal plasma cells in the Mitotic activity and amyloid deposition may be present and the inflammatory cells are very sparse(17)." was added.
3. In the discussion section, Page 10, line 210-218, "Under normal circumstances, invasive surgery prior to histological definition is not very appropriate. However, in our case, a provisional diagnosis of PCG combined periodontitis was made based on the typical clinical findings and good response to periodontal initial therapy. Radiologically the lesion did not show infiltrative margins like a malignant tumor.

Consideration of the age and the tolerance to operation, a combination treatment of root coverage together and biopsy might provide superior clinical effectiveness. A second surgery was not necessary again. It decreased the burden on the body and economic of the patient.” was added.