

Treatment of rarely seen maxillary arch buccal bone exostoses

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Abstract

Introduction: Buccal bone exostoses are rare, benign, broad – based surface masses on facial aspect of maxilla extending mainly from premolar region to molar. They are painless, might increase with the age causing concern towards poor aesthetic, difficulty in oral hygiene maintenance eventually leading to compromised periodontal health condition.

Aim: To eliminate the poor aesthetic concern of patient by removing buccal bone exostosis.

Materials and Methods: The treatment of bilateral buccal bone exostoses in the female patient was carried out by resective osseous surgery. The post operative follow up was done after 7 days and 3 months.

Conclusion: The optimal aesthetic outcome was achieved for the patient by eliminating the buccal bone exostoses.

Keywords: Exostosis, Resective osseous surgery, Aesthetic, Periodontium.

Introduction

In current modern era the reason to visit a dentist is not only restricted to functional problems of the teeth but it's also for aesthetic reasons. A sound aesthetic smile depends mainly on 3 components such as gingiva, teeth and lips. Tori and bony exostoses are localized nodular bony protruberances formed of calcified bone arising from cortical bone more often found on buccal and lingual aspect.¹ According to the location of the tori they are mainly known as torus palatines (midline of hard palate) and torus mandibularis (lingual aspect of mandible).² Buccal and palatal tori are multiple nodular bony prominence found rarely.

Buccal exostoses is painless, bilateral smooth bony prominence, mostly extending from premolar to molar teeth. The overlying mucosa appears to be stretched but intact and normal in colour. Such cases are found more in men than in women.³ Multifactorial findings including genetic and functional influences are known to be etiological factors.⁴ The common choice of treatment is by performing resective osseous surgery using bur and hand instruments.

Materials and Methods

A 32 year old systemically healthy female patient reported to the department of Periodontology, Manubhai patel dental college and hospital, Vadodara-Gujarat with chief complain of being unconfident while smiling which reflected improper size of gums.

There was gradual increase in size of gums since 4-5 years with no sign of ulceration or pain and discomfort. The clinical examination of oral cavity revealed gingival overgrowths on complete maxillary arch extending from molar region of left side till molar region on the right side (Fig. 1). On palpation the lesion was bony hard in consistency and the overlying mucosa was stretched, thin and blanched with no interference with speech or mastication. There was no relevant systemic medical or drug history associated. This bony protruberance on facial aspect emerging from the cortical plate of maxilla indicated the

final diagnosis to be false gingival enlargement with multiple buccal exostoses.

Generally, no treatment is required for buccal exostoses but as the patient's complain was to achieve proper aesthetics, the surgical treatment to remove the bony prominence was carried out after explaining post surgical risk and complications and written informed consent was taken.

Under local anesthesia full thickness mucoperiosteal flap was reflected to expose the underlying exostoses adequately (Fig. 2a). The bony exostoses was removed using a combination of hand and rotary instruments under continuous saline irrigation to eliminate chances of heat generation (Fig. 2b). After thorough irrigation the flaps were approximated and sutures were taken (Fig. 2c). Antibiotics, analgesics and chlorhexidine mouthwash were prescribed to eliminate post operative complication.

At 7 days post-operative the patient was recalled for examination of healing and for suture removal. The healing of the tissue was uneventful and patient was asymptomatic (Fig. 3a). The clinical assessment at 1 month and 3 month followed up showed no deformities in gingival contour (Fig. 3b and 3c).



Fig. 1

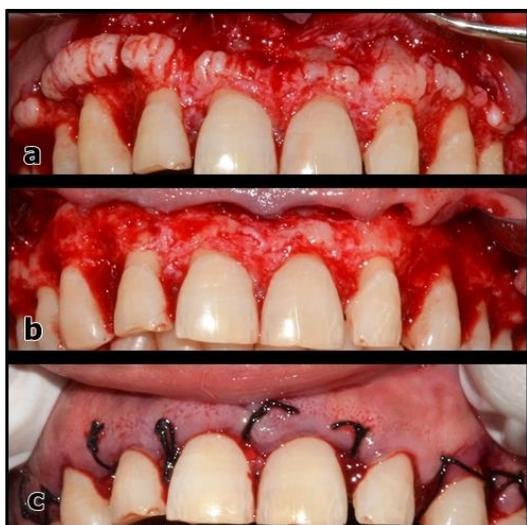


Fig. 2 a,b,c

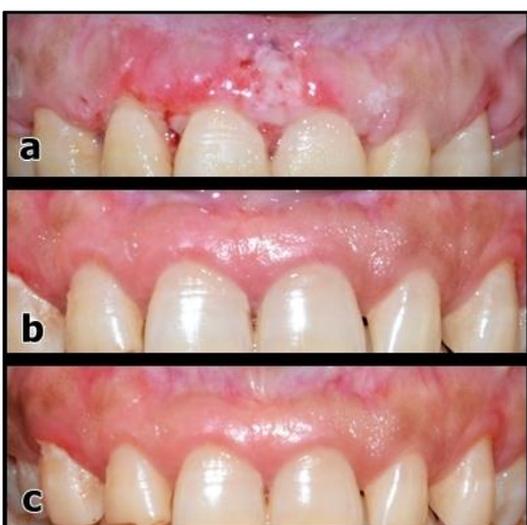


Fig. 3a,b,c

Discussion

Buccal exostoses are non-malignant lesions of little clinical significance. The multiple masses in the maxilla are consistent with multiple buccal exostoses, which are bony protuberances that arise from the cortical plates in the maxilla and mandible. They usually occur in the late teens and early adult years, and many continue to enlarge slowly over time. The etiology of the multiple exostoses remains unknown, although it has been suggested to be the outcome of a mild, chronic periosteal inflammation. The diagnosis of a buccal exostosis is based on clinical and radiographic findings. An additional biopsy for diagnostic support is usually not recommended. It remains important to distinguish exostoses from early osseosarcomas and chondrosarcomas.

The desire to achieve proper aesthetics is an important aspect when patient visits the dentist. The display of proper anterior teeth region while smiling adds self-confidence to a

individual.⁵ In our case patient came with chief complain of excessive display of gums while smiling.

Exostoses should be diagnosed differently from an osteoma, which has a similar clinical finding, radiographic, and histological picture. The patient should be clinically diagnosed for Gardner syndrome if there is presence of multiple bony over growths not in the classic torus or locations. Biopsy should be performed if there is any dilemma regarding diagnosis.

Neither tori or exostoses require any treatment unless it is affecting the aesthetics, occasional ulceration, difficulty in wearing dentures, if it is affecting the periodontium. Considering the chief complain of the patient we decided to surgically remove the bony exostoses. In some patient where regenerative procedures is indicated the bony exostoses works as a valuable autograft to treat the alveolar bone defects.

Conclusion

The case report presented above illustrates a unique and rare presentation of exostosis on the entire buccal side of the maxillary region. A osteoplasty procedure was performed to remove the exostoses. The procedure went uneventfully and successful restitution of the physiological bony contour without any untoward complications was accomplished thus, affording as a viable therapeutic option whenever indicated. Exostosis is rarely found on the facial surface of maxilla, thus should not be ignored and should be carefully differentially diagnosed. Recent years pointed the use of autograft for managing localized alveolar ridge defects. This finding should be kept in mind in cases with buccal bone exostosis, since they could be a more efficient alternative donor site beside symphysis or ramus graft.

Conflict of Interest: None.

References

1. Neville BW, Damm DD, Allen CM, Bouquot JE, (Editors). Oral and Maxillofacial Pathology, Philadelphia: WB Saunders Co.; 1995. p. 17-20.
2. Antoniadis DZ, Belazi M, Papanayiotou P. Concurrence of torus palatinus with palatal and buccal exostoses: Case report and review of the literature. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod* 1998;85(5):552-7.
3. Blaggana A, Blaggana V. Surgical Management of an Atypical Case of Multiple Mandibular Exostoses: A Case Report. *Internet J Bioeng* 2010;5(1):4-9.
4. Jaikittivong A and Langlais RP. Buccal and palatal exostoses: Prevalence and concurrence with tori. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod* 2000;90(1):48-53.
5. Gonçalves KJ, Agnoletto GG, Storrer CM, Deliberador TM, Gonçalves KJ, Julio A, et al. Periodontal plastic surgery for treatment of gummy smile with cosmetic restoration treatment. *RSBO* 2017;14(1):50-5.
6. Smitha K and Smitha GP. Alveolar exostosis – revisited: A narrative review of literature. *Saudi J Dent Res* 2015;6(1):67-72.

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