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Case Report

Contemporary Management of Cementoblastoma: Surgical Technique and Oral Rehabilitation. Case Report

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Abstract

Cementoblastoma is a benign, slow-growing odontogenic tumor. Its most common symptoms are pain and inflammation, but the patient can be asymptomatic as well. Radiographically it can be seen as a radiopaque mass attached to the affected tooth and the recommended treatment is its extraction along with the affected tooth. This case represents a cementoblastoma located in the right mandible first molar of a symptomatic female patient where a surgery to extract both, the lion and the tooth, was performed.

Keywords: *Cementoblastoma; Odontogenic Tumor; Surgical Extraction*

Introduction

Cementoblastoma is an odontogenic tumor that has a mesodermal origin, it is derived from cementoblasts and it represents less than 1% of all odontogenic tumors. It is more frequent in younger patients without any gender predilection and it affects commonly the mandible in the first molar region. Cementoblastomas have a slow growth and in most cases they are asymptomatic, however, they may cause pain upon palpation and cortical bone expansion [1,2]. Radiographically it distinguishes by being a radiopaque mass surrounded by a radiolucent zone that is attached to the apical region of the affected tooth. Histopathologically, cementoblastomas are characterized by a mass formation that is similar to cementum tissue and present a wide trabeculae with cementoblasts and cementoclasts [1,3].

Case Report

A 56-year-old female patient presented with a mild facial asymmetry on the right side caused by a slow progression swelling on the buccal region with moderate intensity pain located in the right mandible's body (shows cortical bone expansion). The clinical and image evaluation with conventional radiography and CBCT showed a 10 mm radiopaque image in the periapical region of tooth 4.6 (positive pulp vitality).

Figure 1: Preoperative panoramic radiograph.

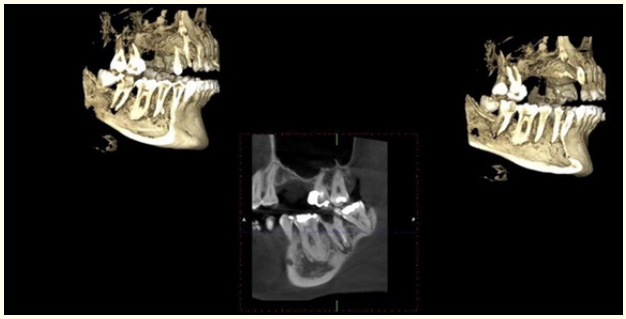

Figure 2: Preoperative CBCT.

Under local anesthesia and endovenous sedation the surgical extraction of tooth 4.6 and 4.7 with excisional biopsy of the lesion was performed using a modification of the conventional technique implementing a Surgical Round Trephine. This contributed to the extraction being faster, safer and with security margins that included corticomedullary bone highlighting the non affected alveolar bone preservation. 06 PRF (Platelet Rich Fibrin) clots (previously obtained) were put in the surgical site for healing.

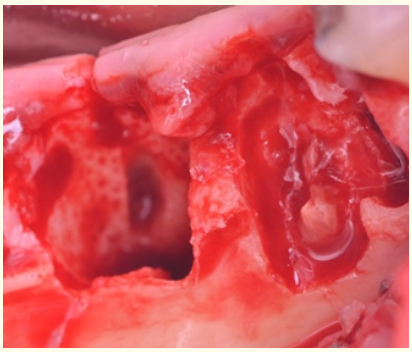

Figure 3: Alveolar processes after extraction.

The histopathological study revealed a fragment that showed collagen fibers with fibroblasts and scarce blood vessels outlined by normal endothelium. Abundant extravasated erythrocytes and bone tissue fragments were present. The definitive diagnosis was a cementoblastoma.

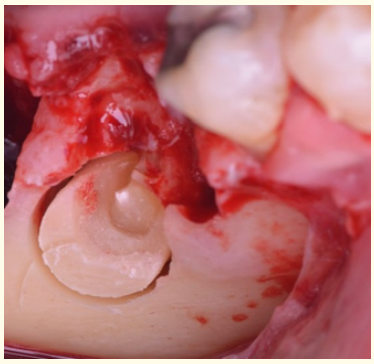

Figure 4: Cortical bone block osteotomy.

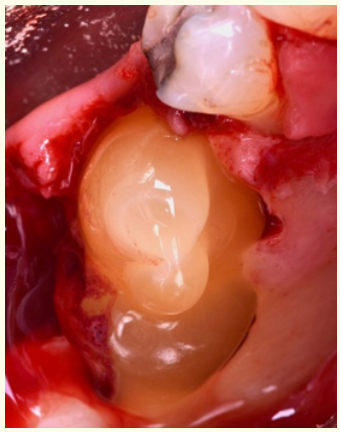

Figure 5: A-PRF clots placement.

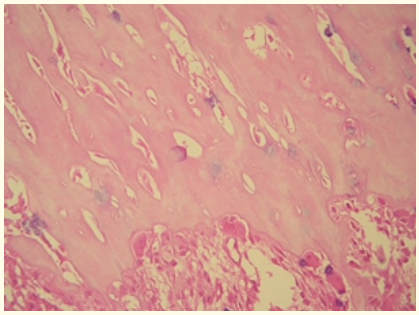

Figure 6: Histopathologic slide showing signs of cementoblastoma.

4 months after the lesion was eliminated the clinical and image controls showed no sign of recurrence and a reconstructive surgery was performed where two (2) 0,4 x 10 mm Neobiotech (R) implants were placed in the right mandible region and rehabilitated with an implant-supported bridge.

Figure 7: Histopathologic slide showing signs of cementoblastoma.

Patient has been in follow up stage for 4 years now with bone regeneration evidence in the previously treated zone and functionally stable without lesion recurrence.

Figure 8: 5-year follow up panoramic radiograph.

Discussion

Cementoblastomas have an excellent prognosis when the surgical excision of the lesion is made. In the presented case, the patient was symptomatic so the most adequate treatment was the lesion's excisional biopsy, the extraction of the affected tooth and curettage [2-4]. Besides following with the mentioned treatment plan, PRF clots were placed to stimulate bone regeneration in the affected zone so it could be in good condition to place implants later on. Cementoblastomas must be surgically removed because of their unlimited growth potential, following this treatment plan the recurrence probability is very low [5]. There are a lot of factors to consider in order to achieve a satisfactory long term result and stability on these cases using the PRF treatment plan, and although more studies of this kind should be needed to prove its effectiveness, there are a lot of studies supporting the benefits of using PRF in bone regeneration cases.

Conclusion

The use of a modified surgical technique is extremely important in these cases in order to have more precision in the lesion's excision that involves hard tissue (bone), close to important structures and to be able to maintain alveolar crests that determine the success of the bone regeneration and perform an implant-supported rehabilitation. The surgical approach, the A-PRF Protocol described by Dr. Choukroun, the clinical follow ups and the stability of the peri-implant component were determined variables on the management and performance of this case.

Bibliography

1. Donohue A, De La Torre A, Sánchez L. Reporte de un caso clínico de cementoblastoma y revisión de la literatura. Rev Cubana Estomatol. 2009;46(2).

2. Lazarde J, Montilla G, Rivera H, Padrón B. Cementoblastoma Benigno. Reporte de un caso. Acta Odontológica Venezolana. 1999;37(1).

3. De Moraes EJ, Benevides N, Farias D. Evolución de 1 año de un paciente rehabilitado con implantes oseointegrados después de la resección quirúrgica de un cementoblastoma: Reporte clínico. Rev Esp Cirug Oral y Maxilofac. 2009;31(6).

4. Mahmut S, Gunduz K, Summer A, Gunham O. Benign cementoblastoma: A case report. Med oral patol oral cir bucal. 2006;11(6):E483-E485.

5. Sharma N. Benign cementoblastoma: A rare case report with review of literature. Contemporary Clinical Dentistry. 2014;5(1):92-94.

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