CORPUS PUBLISHERS

Open Access Journal of Dental and Oral Surgery (OAJDOS)

Volume 1 Issue 2, 2020

Article Information

Received date: July 09, 2020

Published date: July 20, 2020

*Corresponding author

Juárez Rebollar Alejandra Giselle, Dental Surgeon, Resident of Maxillofacial Surgery, Hospital "Dr. Bernardo Sepúlveda Gutiérrez", XXI Century National Medical Center, Mexico

Keywords

Cementoblastoma, cementum, molars, mandibular, benign lesion.

Case Report

Mandibular Cementoblastoma in the Molar Region

Juárez Rebollar Alejandra Giselle[1]*, Gallegos Hernández José Francisco[2], Ozuna Ugalde Roberto[3], Alvarez Valadez Carlos Omar[4], Juárez-Rebollar Daniel [5] and Juárez Paredes Celso Marcelo[6]

[1]*Resident of Maxillofacial Surgery, at the Mexican Institute of Social Security, IMSS, Mexico*

[2]*Resident of Maxillofacial Surgery, at the Mexican Institute of Social Security, IMSS, Mexico*

[3]*Maxillofacial surgeon, private practice, graduated from the National Medical Center "La Raza", IMSS, Mexico*

[4]*Resident of Maxillofacial Surgery, at the Mexican Institute of Social Security, IMSS, Mexico*

[5]*Doctor graduated from the Autonomous Metropolitan University (UAM), Mexico*

[6]*Family Physician, Mexican Institute of Social Security (IMSS), Mexico*

Summary

Cementoblastomas are benign lesions, of idiopathic etiology, generally asymptomatic, without gender predilection, more frequently in young patients, related to the root region of the teeth, mainly molars, radiographically they are radio-opaque well delimited with a halo, histologically they are Composed of cement and a fibrous capsule, the main treatment is with surgical enucleation and extraction of the affected teeth. The case of a mandibular cementoblastoma in the molar region treated surgically with enucleation of the lesion without complications is presented.

Introduction

Cementoblastomas were first described in 1927 by Dewey [1,2] are classified according to the World Health Organization (WHO) as odontogenic tumors derived from the mesenchyme and/or ectomesenchyme that may or may not have odontogenic epithelium [3]. It represents 1 to 6.2% of odontogenic tumors and is considered the only true neoplasm of cementitious origin. Cementoblastomas are generally found as radiographic findings, are asymptomatic, however there are occasions when patients can report dental sensitivity and test positive for vitality in endodontic tests; cases that refer to painful symptoms are generally associated with compression of the inferior alveolar nerve [4-9]. They appear more frequently in the premolar and molar mandibular area [10], has been associated with deciduous teeth [11] although it can also appear in permanent or non-erupted teeth [12], or associated with several teeth [13] and it is rare that it occurs in relation to the maxillary sinus [14,15]. More cases refer to the first molar. They are of idiopathic etiology [16-18]. They frequently occur in young patients, some studies such as Ulmansky's mention three-quarters of the patients are under 30 years old, around 70% are from the second decade of life, and even Brannon et al. Mention a minimum range of 8 years. and maximum 44 years [10,19,20,21]. No gender predilection found [10,20]. However some authors like Ohki and Monks refer it is more frequent in women [10,13,23,24]. The radiographic features presented by Cementoblastomas are radiopaque masses associated or fused to the root or roots of one or more teeth, surround the root and are often observed with a radiolucent halo that surrounds them [19] Cementoblastomas may not present clinical characteristics and on other occasions when the lesion is large, an increase in volume is observed in relation to the site where they are found, they are slow growing and are usually limited, it is estimated 0.5cm of growth annually, however in some occasions it appears more aggressive and expansive causing bone destruction or expansion of corticals, in other cases cortical erosion is observed, when it is associated with the maxillary sinus it is due to its presence and / or association with involved upper teeth [7] Histologically it is characterized by being well circumscribed, it is mainly composed of cement, and it is surrounded by a fibrous capsule. The most frequent treatment is surgical enucleation, as well as the extraction of the involved teeth, since they can present rhizolysis and mobility, associated endodontic pathologies have rarely been reported, a very low recurrence of approximately 20-30% is reported in the literature [2,10,25,26,27].

Report of a Case

Male patient of the third decade of life, who comes for a review, for presenting: a slight increase in volume intraorally in the left lower molar region, anamnesis and physical examination of the patient, without extraoral volume increase, adequate mouth opening of approximately 4cm, intraorally mucous membranes of adequate color, incomplete secondary dentition, partially erupted third molars, with the presence of an operculum, old dental restorations without data on active carious lesions, no mobility of any teeth was observed, the vitality tests were positive, it is observed and palpates an increase in vestibular volume at the level of the lower left first molar, indurated. An orthopantomography is requested and a radiolucent area is seen (Figure 1) in relation to the roots of the first lower left molar, well delimited, with some mixed areas, rhizolysis is seen predominantly in the distal root of the first molar, and a denser area in the mesial root of the same tooth, limited by the medial root from the ipsilateral second molar and anteriorly through the distal root of the left lower second premolar, contact with the left dental nerve canal is seen; An incisional biopsy is performed under local anesthesia and it is sent to Pathology for diagnosis, which they confirm as "Cementoblastoma", so a pre-surgical protocol is started to carry out the enucleation of the lesion under balanced general anesthesia, it is decided to perform the extraction of the first left lower molar involved with the lesion, likewise an "envelope" approach is performed, taking care not to tear the inserted mucosa, enucleation of the lesion is performed without complications, the surgical bed is cleaned, irrigated with physiological solution, sample is sent (Figure 2) a Pathology for its definitive diagnosis. The flap is closed with a resorbable suture without complications. Control appointment is given in one week to the patient. To date, no clinical or radiographic data suggestive of lesion recurrence have been reported.

Discussion

The case presented, as well as the data reported by Ulmansky and Brannon, was in a young patient, in the age range mentioned by the previous authors, therefore it coincides with the highest frequency of age as well as the location, since it has been described

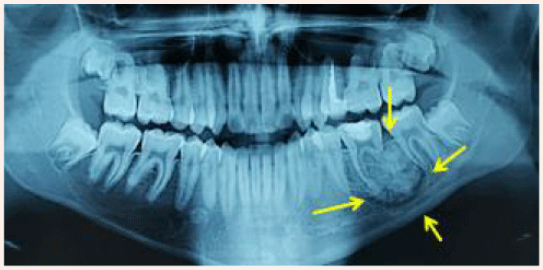

Figure 1: Orthopantomography with the presence of Cementoblastoma (yellow arrows).

Figure 2: Left mandibular cementoblastoma mass, in molar region.

in different studies, the tooth that is mostly associated with Cementoblastomas is the first lower molar and the case presented was in relation to that tooth. Like Fontes, Brannon and Gulses, among other authors, the management by which we opted was to perform the enucleation of the lesion. It was also decided to perform the extraction of the first lower molar involved, making sure that there were no remains of the lesion in the surgical bed. and currently there is regular monitoring of the patient, through review appointments.

Conclusion

It is important to highlight that a complete study of each patient should be carried out, which should include, in addition to the anamnesis, a series of cabinet studies, which would help the surgeon to diagnose early in the event of an injury, such as the Cementoblastoma, which is usually a radiographic finding, on the other hand, since the incidence and frequency are low as well as the null symptoms, we must take into account other pathological entities that present cortical expansion, or by radiological image. Some examples of differential diagnoses of Cementoblastoma are: Periapical Cement Dysplasia, Osteoblastomas, Cementifying Fibroma, Hypercementosis or Osteoma. The treatment and extraction or not of the associated teeth will depend on the damage, extension, size and characteristics of the lesion and each patient.

Conflict of Interests

Neither the authors nor any member has a financial or interest relationship (currently or in the last 12 months) with any entity producing, marketing, reselling or distributing health care products or services consumed by, or used in, the patients.

References

1. Dewey KW (1927) Osteoma of a molar. Dent Cosm 69: 1143-1149.
2. Fontes da Silva H, Sigua Rodriguez E, Moraes M (2019) Surgical treatment of cementoblastoma in maxillary associated on dentofacial deformity, Oral and Maxillofacial Surgery Cases 5(1): 100081.
3. Huber AR, Folk GS (2009) Cementoblastoma. Head Neck Pathol 3(2): 133-135.
4. Lu Y, Xuan M, Takata T, Wang C, He Z, Zhou Z, et al. (1998) Odontogenic tumors. A demographic study of 759 cases in a Chinese population. Oral Surg Oral Med Oral Pathol Oral Radiol Endod 86(6): 707-714.
5. Bravo-López I, Hernández-Palacios D (2018) Cementoblastoma maxilar. Caso clínico. Casos y Revisiones de Salud 1(0): 31-34.
6. Aparicio A, Mehdi A, Gómez D, Alvarado P, Ruiz E (2013) Cementoblastoma: A propósito de un caso clínico y revisión bibliográfica. Asignatura de Anatomía, Patología General y Bucal. Murcia: Universidad de Murcia, p 2-4.
7. Osorio R, Rodríguez L (2013) Diagnóstico y tratamiento de un cementoblastoma en la consulta dental. Redoe 22(1): 11-14.
8. Rodríguez M, Mendiburu C, Peñaloza C (2009) Cementoblastoma: Reporte de un caso clínico. Rev Mex Odon Clín 3(6): 12-14.
9. Surco L (2013) Tumores odontogénicos benignos de los huesos maxilares. Revista de Actualización Clínica 34(2): 12-13.
10. Brannon RB, Fowler CB, Carpenter WM, Corio RL (2002)Cementoblastoma: an innocuous neoplasm? A clinicopathologic study of 44 cases and review of the literature with special emphasis on recurrence. 2002Oral Surg Oral Med Oral Pathol Oral Radiol Endod Mar; 93(3): 311-320.
11. Lemberg K, Hagstr€om J, Rihtniemi J, Soikkonen K (2007) Benign cementoblastoma in a primary lower molar, a rarity. Dentomaxillofacial Radiol 36(6): 364-366.
12. Dinakar J, Senthil Kumar M, Mathew Jacob S (2010) Benign cementoblastoma associated with an unerupted third molar -A case report. Oral Maxillofac Pathol J 1: 76-78.
13. Ohki K, Kumamoto H, Nitta Y, Nagasaka H, Kawamura H, et al. (2004) Benign cementoblastoma involving multiple maxillary teeth: report of a case with a review of the literature. Oral Surg Oral Med Oral Pathol Oral Radiol Endod 97: 53-58.
14. Infante P, Hernandez JM, Acosta M, Carranza A (2008) Cementoblastoma involving the maxillary sinus. Br J Oral Maxillofac Surg 46(3): 234-236.
15. Dadhich A, Nilesh K (2015) Cementoblastoma of posterior maxilla involving the maxillary sinus. Ann Maxillofac Surg 5(1): 127-129.
16. Piattelli A, Di Alberti L, Scarano A, Piattelli M (1998) Benign cementoblastoma associated with an unerupted third molar. Oral Oncol 34(3): 229-231.
17. Sumer M, Gunduz K, Pınar A, Gunhan O (2006) Benign cementoblastoma: A case report. Med Oral Patol Oral Cir Bucal 11(6): E483-485.
18. Piatelli A, Daddona A, Piatelli M (1990) Benign cemento-blastoma: Review of the literature and report of a case at unusual location. Acta Stomatol Belg 87(3): 209-215.
19. Ulmansky M, Hjorting-Hansen E, Praetorius F, Haque MF (1994) Benign cementoblastoma; a review and five new cases. Oral Surg Oral Med Oral Pathol 77(1): 48-55.
20. Weber A, Kaneda T, Scrivani S, (2003) Cysts, tumors, and nontumorous lesions of the jaw. In: Som PM, Curtin HD (Eds.). Head and neck imaging, 4th edn, St Louis, Mosby, USA, pp 930-994.
21. Kaneda T, Minami M, Kurabayashi T (2003) Benign odontogenic tumors of the mandible and maxilla. Neuroimaging Clin N Am 13(3): 495-507.
22. Regezi J, Sciubba J (1989) Oral pathology: Clinical-pathological correlations. Saunders, USA, pp 359-361.
23. Monks FT, Bradley JC, Turner EP (1981) Central osteoblastoma or cementoblastoma? A case report and 12-year review. Br J Oral Surg 19(1): 29-37.
24. Gulses A, Bayar G, Aydin C, Sencimen M (2012) A case of a benign cementoblastoma treated by enucleation and apicoectomy. Gen Dent 60(6): e380-382.
25. Hirai E, Yamamoto K, Kounoe T, Kondo Y, Yonemasu H, et al. (2010) Benign cementoblastoma of the anterior maxilla. J Oral Maxillofac Surg 68(3): 671-674.
26. Biggs J, Benenati F (1995) Surgically treating a benign cementoblastoma while retaining the involved tooth. J Am Dent Assoc 126(9): 1288-12890.