ACTA RADIOLÓGICA PORTUGUESA
September-December 2022 | Vol 34 nº 3 | 32-33

Images of Interest / Imagens de Interesse

Extensive Mandibular Cementoblastoma

Extenso Cementoblastoma Mandibular

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Received: 07/12/2021
Accepted: 21/08/2022
Published: 30/12/2022

Abstract

Cementoblastoma is a rare and benign odontogenic mesenchymal tumor, usually characterized by the formation of cementum-like tissue produced by neoplastic cementoblasts attached around the roots of a tooth. The tumor has unlimited growth potential. Often the suggested treatment is tumor resection together with the associated tooth. We present a clinical case of large proportions of cementoblastoma located in the posterior region of the mandible in a young male patient.

Keywords

Cementoma; Mandible; Neoplasm.

Resumo

O cementoblastoma é um tumor mesenquimatoso odontogénico raro e benigno, geralmente caracterizado pela formação de tecido semelhante ao cemento produzido por cementoblastos neoplásicos ligados em redor das raízes de um dente. O tumor tem potencial de crescimento ilimitado. Frequentemente o tratamento sugerido é a ressecção tumoral em conjunto com o dente associado. Apresentamos um caso clínico de cementoblastoma de grandes proporções localizado na região posterior de mandíbula num paciente jovem do género masculino.

Palavras-chave

Cementoblastoma; Mandíbula; Neoplasia benigna.

A 23-year-old male patient, black, attended the outpatient clinic due to volumetric increase in the right mandibular region, with a tumoral appearance, painless on palpation and without sensory impairment. The panoramic radiographic examination (Figure 1) showed a region with a mixed appearance, measuring approximately 5 cm, mainly affecting the periapical region of the lower second molar and the diagnostic hypotheses raised were bone dysplasia, cementoblastoma and osteoblastoma. Initially, an incisional biopsy was performed to confirm the diagnosis, which indicated the lesion as being cementoblastoma. After confirming the diagnosis, a computed tomography (Figure 2, A and B) was performed to better assess the dimensions and location of the lesion, for more accurate jaw surgical planning in the areas of 46 and 47 and in proximity to 48.
The patient underwent segmental resection of the mandible, under general anesthesia, with installation of a 2.4mm Load Bearing fixation system to maintain stability, adequate mandibular contour and union of bone stumps (Figure 3).

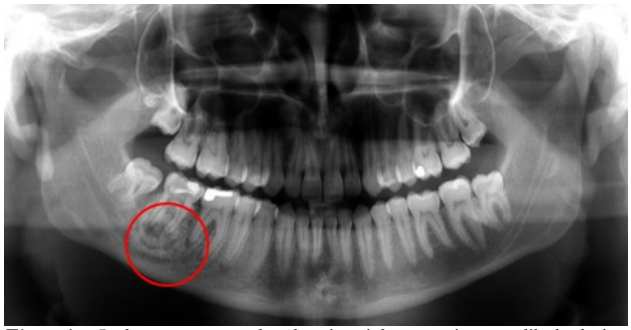


Figure1 – Orthopantomography, showing right posterior mandibular lesion (inside circle).

Cementoblastoma has been updated and included in the 2017 WHO Classification of Odontogenic Tumors and is considered the only true neoplasm of cementum. This lesion affects most commonly the mandibular teeth (79.5%) and permanent mandibular first molars are the most common teeth involved.[1,2] The main characteristics of this usually

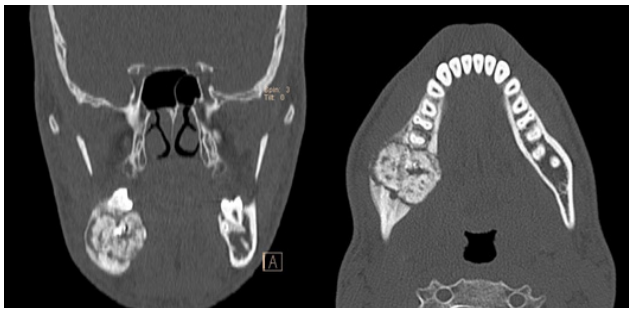


Figure 2 – A - Axial bone window computed tomography scan showing the mandibular lesion in its anteroposterior and lateral dimensions. **B** - Coronal reformatted computed tomography image showing craniocaudal as well as lateral dimensions of the lesion.

asymptomatic tumor are its slow and unlimited growth, causing bone expansion without cortical destruction and facial asymmetry and, in very rare cases, lower lip paresthesia.[2,3] This is frequently a casual radiographic finding and presentation depends on the stage of its maturation. The treatment of choice is complete surgical removal of the lesion with extraction of the tooth or associated teeth, and a conservative approach can be adopted through curettage and peripheral ostectomy, a technique recommended for small lesions.[1,2,3]

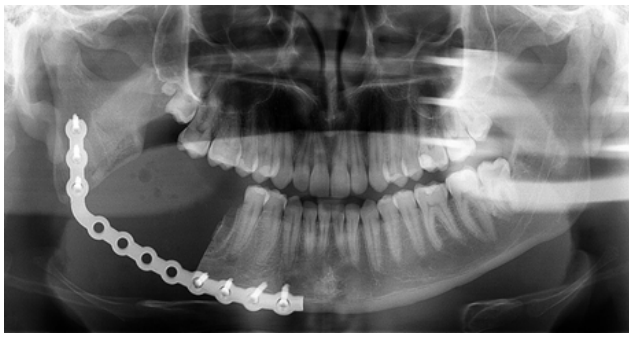


Figure 3 – Orthopantomography after tumor resection with load bearing plate.

A more radical surgical approach, through resection, whether marginal or segmental, has been shown to be the best alternative with lower and minimal recurrence. The recurrence rate varies from 5.9% to 37.1%, either aggressive or conservative surgical treatment are adopted, respectively.[3] Considering the recurrence variability depending on the treatment used, a long-term follow-up is essential, especially in cases where a so-called more conservative treatment is used.

Ethical disclosures / Divulgações Éticas

Conflicts of interest: The authors have no conflicts of interest to declare.

Conflitos de interesse: Os autores declaram não possuir conflitos de interesse.

Financing Support: This work has not received any contribution, grant or scholarship.

Suporte financeiro: O presente trabalho não foi suportado por nenhum subsídio ou bolsa.

Confidentiality of data: The authors declare that they have followed the protocols of their work center on the publication of data from patients.

Confidencialidade dos dados: Os autores declaram ter seguido os protocolos do seu centro de trabalho acerca da publicação dos dados de doentes.

Protection of human and animal subjects: The authors declare that the procedures followed were in accordance with the regulations of the relevant clinical research ethics committee and with those of the Code of Ethics of the World Medical Association (Declaration of Helsinki).

Protecção de pessoas e animais: Os autores declaram que os procedimentos seguidos estavam de acordo com os regulamentos estabelecidos pelos responsáveis da Comissão de Investigação Clínica e Ética e de acordo com a Declaração de Helsinque da Associação Médica Mundial.

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