Botryoid odontogenic cyst: case report with etiopathogenic, diagnostic and therapeutic considerations

INTRODUCTION

The botryoid odontogenic cyst (BOC) is a rare lesion, described by Weathers, Waldron in 1973. Its main characteristics are the typical multilocular aspect, similar to a bunch of grapes, justifying its terminology (botryoid: from the greek botrys = bunch of grapes; oeides = in a shape of), commonly affecting the mandible bicuspid and canine region without symptoms. Other evidences suggest the possibility of this lesion represent a variation of the lateral periodontal cyst (LPC), promoting discussion and doubt among authors.

This paper presents a case report of this rare and polemic odontogenic cyst, contributing to the small number of publications of this pathology in the literature. Moreover a discussion with focus on its etiopathogenic, diagnostic and therapeutic considerations is presented by the authors.

CASE REPORT

A male, 44 years old, melanoderma, came up complaining of a swelling in the anterior left region of the mandible for already two months. The intra-oral examination showed a discreet but consistent and hard swelling adjacent to the canine without alterations in the local mucosa. Periapical and oclusal radiographies demonstrated a radiolucent multilocular image of approximately 20 mm over the canine root with extension to the adjacent incisive teeth (Figures 1 and 2). Dental vitality test showed positive result of the mentioned teeth, discarding inflammatory origin. Considering the possibility of a BOC, an excisional biopsy using enucleation followed by peripheral ostectomy technique was performed.

During surgery, strong adhesion of the cystic capsule to the canine root was observed. The surgical
DISCUSSION

There are many doubts related to the etiopathogenesis of the BOC and its condition as an individual entity. The hypothesis of such lesion representing a multilocular variation of the LPC is defined by some authors based in clinical and histopathologic similarities\(^1\)-\(^2\). Both present predilection to the inferior canine and bicuspid region, as presented in the present case, and demonstrate epithelium with clear cells nodule\(^3\)-\(^5\).

It is believed that the BOC and the LPC have the same origin, although the type of odontogenic epithelium is debated. The participation of the reduced enamel epithelium or the epithelium rests of Malassez was suggested in the etiopathogenesis of these lesions\(^6\). However, recent publications defend the cystic degeneration of dental
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presented between 15 and 30%, the presented incidence number is low to determine confident data\textsuperscript{4-5,8}. In these studies, recurrence is observed around ten years after enucleation.

Even tough some reports point out the proliferative behavior of the BOC, it is believed that the recurrences are related to the difficulty to the complete removal of the lesion due to its multilocular aspect and its thin capsule\textsuperscript{5,8}. This idea is supported in the histopathologic finds of Phelan et al.\textsuperscript{9}, that showed microcysts in the capsule of recurred LPCs (which perhaps could classified as BOC due to its multilocular aspect).

To accomplish the therapeutic of the BOC, the complementary treatment of the surgical bed may be used after enucleation. As alternatives, the peripheral ostectomy or Carnoy solution application fit perfectly in order to eliminate possible remnants of this lesion\textsuperscript{10-11}. Although the diagnosis of the BOC is only confirmed after histopathologic examination, clinical, radiographic or macroscopic characteristics suggestible of this lesion may help in the indication of complementary treatment modalities during surgery. Even with the use of the techniques, we suggest follow-up for a long period due to the scarce scientific knowledge related to this odontogenic cyst.

CONCLUSION

The etiopathogenesis of the BOC seems to be related to the degeneration of the dental lamina rests, as nowadays accepted for the LPC. Both lesions have similar characteristics and may represent the same nosologic entity in distinct evolution periods. The tendency for recurrence presented by the botryoid variant might be controlled by surgical complementary approaches, like peripheral ostectomy and application of Carnoy Solution.

Collaborators

All authors provided the conception of the manuscript, acquisition of data, drafting the manuscript and final approval of the submitted version.

REFERENCES


