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Case Report / Приказ случаја

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Lateral periodontal cyst simulating a residual cyst

Латерална периодонтална циста изгледа резидуалне цисте

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SUMMARY

Introduction Lateral periodontal cysts (LPC) are not frequent and the diagnosis is generally established by means of a routine radiological exploration.

The purpose of this article is to report a case of LPC on edentulous area.

Case Outline A 59-year-old man was referred with an extensive radiolucent cystic lesion on edentulous area of anterior maxilla, with a clinical and radiographic diagnosis of residual cyst. The histopathologic features exhibited a diagnosis of LPC.

Conclusion This is the third case of LPC reported in the literature, which describes a different clinical and radiographic aspect than proposed in the literature.

Keywords: lateral periodontal cyst; residual cyst; edentulous area

Сажетак

Увод Латералне периодонталне цисте (ЛПЦ) нису честе, а дијагноза се поставља најчешће радиолошким прегледом.

Циљ овог рада је да прикаже болесника са ЛПЦ у безубој регији.

Приказ болесника Код мушкарца старог 59 година нађена је велика цистична промена у безубој регији у предњем делу горње вилице и постављена клиничка и радиолошка дијагноза резидуалне цисте. Хистопатолошки преглед је потврдио дијагнозу ЛПЦ.

Закључак Ово је трећи описани случај различите хистопатолошке дијагнозе ЛПЦ од препоручиване клиничке и радиолошке дијагнозе.

Кључне речи: латерална периодонтална циста; резидуална циста; безуба регија

INTRODUCTION

Lateral periodontal cyst (LPC) comprises about 0.4% of all odontogenic cyst [1, 2, 3] and since the last classification the World Health Organization (WHO) [4], is defined as a development odontogenic cyst it is located beside or lateral of a vital tooth [1, 4-6], whose inflammatory cause has been excluded [1, 3-6]. This cyst originates from remnants of odontogenic epithelium [4].

Histologically, it consists of a fibrous cystic wall that is lined by a nonkeratinized squamous epithelium cuboidal, comprising from 1 to 5 layers of cells [3-10]. It is also characterized by the presence of composite plaques epithelial cells and clear cells, rich in glycogen [5-7]. Some publications show a male predilection [2, 5-8]. These lesions are more common in adults during the fifth to seventh decades of life [8] and are located in the mandibular premolar area [1]. Radiographically, the LPCs are mostly radiolucent, unilocular, oval or tear drop, lesions, which are located between the roots of vital teeth and are circumscribed by a sclerotic halo. [7-11]

Although according to the WHO [4] the LPC must be adjacent the root of a tooth pulp vitality, we describe a case of residual LPC whose histopathology was essential to determine this case.

CASE REPORT

A 59-year-old man was referred because of an asymptomatic lesion in the oral cavity with a history of evolution of 6 months. The intraoral examination showed the presence of swelling in the edentulous part of anterior left segment of the maxilla, with 1.0 cm in size, with soft consistency. The periapical and panoramic radiographs (Figures 1 and 2) reveled a well-circumscribed unilocular ovoid radiolucent area, extending from periapical area, at the level of nasal cortical, until the alveolar process, which approximately measured 2.3 cm × 1.5 cm of diameter. It was not observed erosion or expansion of the bone cortical. Then, with these clinical and radiographic characteristics a presumpti-

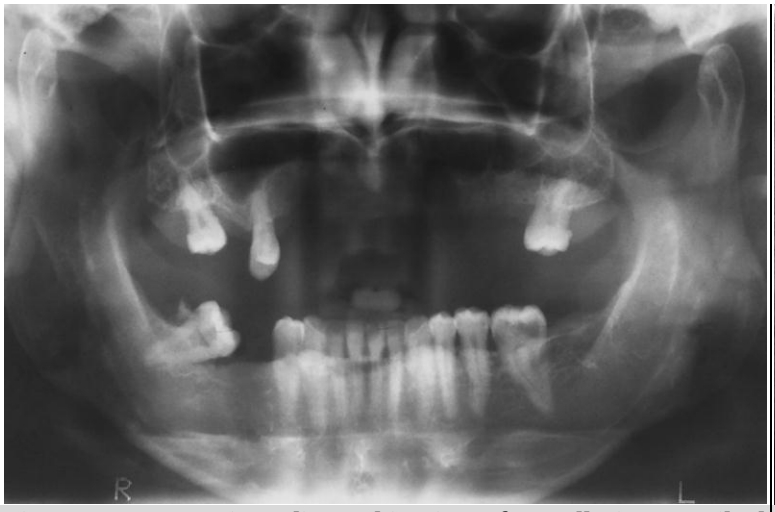

Figure 1. Panoramic radiographic view of a well circumscribed radiolucency in anterior maxilla. A presumptive diagnosis of residual cyst was made.

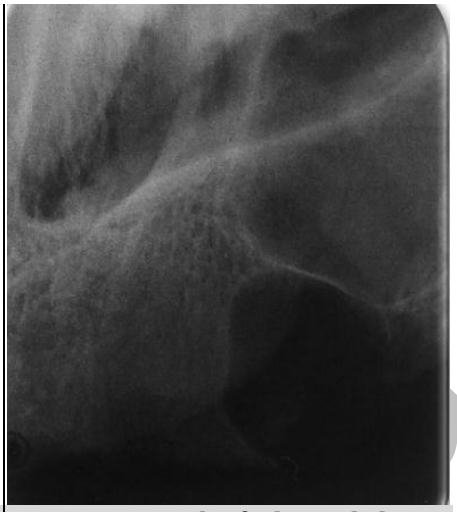

Figure 2. Detail of the radiolucent lesion, which extend to the cortical alveolar process.

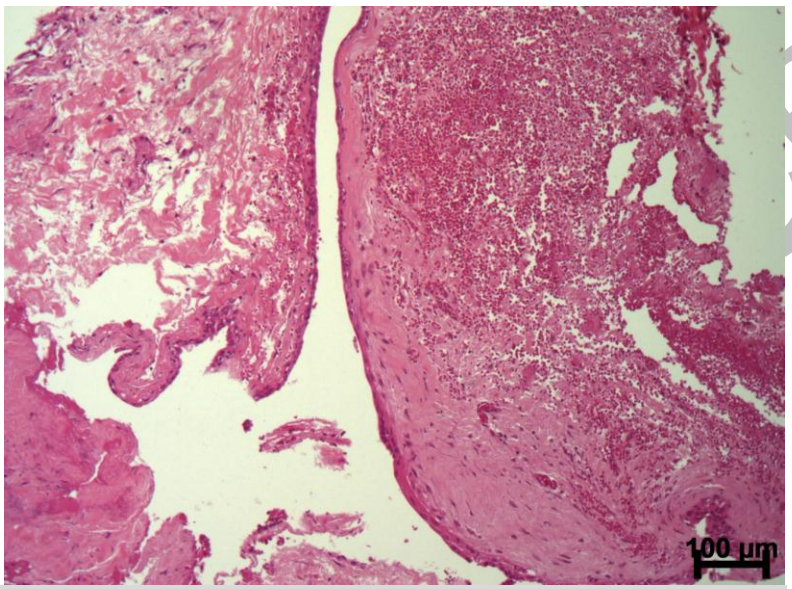

Figure 3. Cystic cavity lined by squamous epithelial cells, bleeding area in the fibrous wall and protrusion into the lumen.

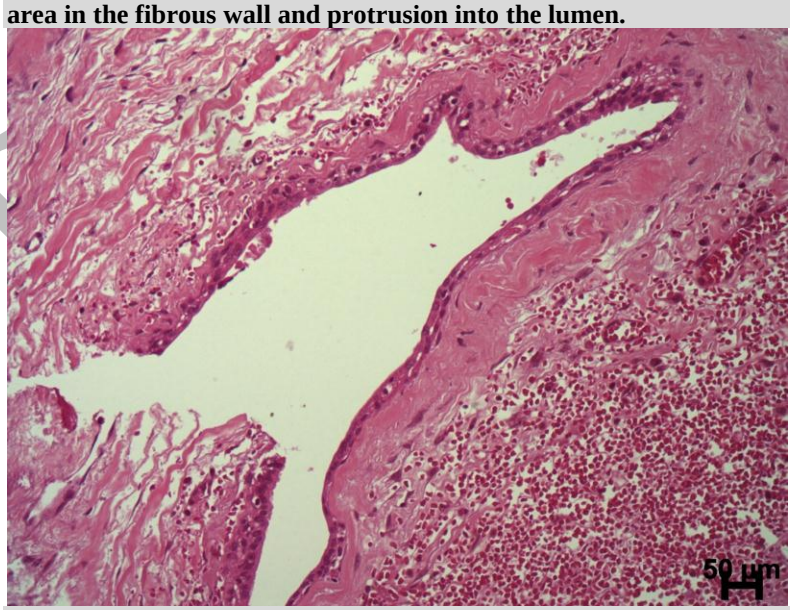

Figure 4. Presence of hyalinization of the capsule and few clear cells.

ve diagnosis of residual cyst was rendered. After excisional biopsy, the histopathologic features exhibited multiple cystic spaces lined by squamous epithelium atrophic, consisting mainly of cuboidal cells exhibiting vacuoles in the basal layer and some clear cells. The fibrous cystic wall showed subepithelial hyalinization and protrusions into the lumen (Figures 3 and 4). On the basis of these findings, a diagnosis of LPC was made.

DISCUSSION

Most publications about LPC are case or series reports with few patients[3] and studies of jaw cysts about the last ten years are still reporting low frequency of this pathology [2,12-17], ranging from 0.12%[12] to 1.7% [13],

with a slight male preference [2,14,15,17], in patients with a wide age range (21-82 years) [1], which is preferably located in premolar area of mandible[1]. Being a little cyst in clinical practice, diagnosed in many cases in a routine radiographic examination [1,2-11], this case differs from the WHO [4] concept and previous studies because of the clinical and radiographic findings.

To our knowledge this case appears to be the second that reports a LPS in edentulous region, simulating residual cyst. The cyst presented in the maxilla differs from the previous study of Mendes and Van der Waal [11] that showed two residual CPL in the mandible [11]. Although the preferred location of the usual LPC is mandible, when they occur in the maxilla, shows a predilection for the anterior region [1, 4], as the case presented.

It is important to note that despite the LPC reported in this work have an oval shape, differing from the residual cysts tend to be circular [1, 4], it has a larger size than reported in the literature, which described lesions smaller than 1.0 cm [4, 8, 9]. Respect to extension of the presented cyst, LPC may have in some cases a different behavior, with the greatest growth potential. In addition, about the behavior of this cyst, it is difficult to determine because of its low frequency [8].

Histopathological aspects of this case fulfils the diagnosis of LPC [1, 3-11]. It caught our attention the presence of hyalinization in the capsule and also protrusions to the cystic lumen (Figure 4), which are not seen in radicular cyst.

The most appropriate treatment for this cyst is a complete surgical enucleation [1, 4] with low tendency to recurrence [4]. As the reported case is larger than usual, it was recommended a follow up every six months, with a radiographic monitoring, because of a possible tendency to recurrence of this particular case.

The LPC described here is in accordance with Mendes and Van der Waal [11] which the clinical and radiographic should have less importance than histological features in the future characterization of this cyst in the literature, once histopathologic features were essential to the conclusion of this case.

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