LATERAL PERIODONTAL CYST MIMICKING A DENTIGEROUS CYST

Dr. Tarig Yousif Abdelmoneim Ramadan¹, Mr. Abdelnasir Gafar², Dr. Mudar Hayyan Alrazzouk³

¹,²,³Oral and maxillofacial surgery Resident
¹,²,³Arab Board of Health Specializations

Abstract: INTRODUCTION: Lateral periodontal cyst is a rare benign developmental odontogenic cyst usually appears as a well-defined radiolucency most commonly between the roots of the lower premolar area.

CASE PRESENTATION: A 40 year old male presented radiographically with a well-defined radiolucency associated with an unerupted lower left 3rd molar.

DISCUSSION: Final Diagnosis depends on histologic examination, and as most reports agree enucleation of the cyst and removal of the tooth if the associated tooth involved was a 3rd molar.

CONCLUSION: From our knowledge this is the 1st report on a LPC mimicking a Dentigerous cyst.

INTRODUCTION

Lateral periodontal cyst is a rare benign intra-osseous epithelial developmental odontogenic cyst that is defined as a non-keratinised and non-inflammatory developmental cyst located adjacent or lateral to the root of a vital tooth where an inflammatory etiology has been excluded, according to clinical and histological features. (1–4) Ethiology associated with the proliferation of odontogenic remnants from the dental lamina, reduced enamel epithelium or epithelial rests of Malassez (5), Mostly in adults with no sex predilection. LPC is usually discovered during routine radiographic examination, is located mainly between the roots of vital mandibular canines and premolars, rarely causes pain or other clinical symptoms. (4,6) Radiographic features show a well-defined, unilocular circumscribed, round or ovoid radiolucent lesion, usually with a sclerotic margin, between the apex and the cervical margin of the teeth (3,5,7), the main differential diagnosis for LPC include lateral periapical cyst, odontogenic keratocyst and other uncommon odontogenic tumors (5). Although the clinical and radiological features of typical LPC are very suggestive, it all comes down to the final diagnosis depending on histological analysis of the surgical specimen (5).

This article reports a case of a LPC presenting as a unilocular radiolucency associated with an unerupted lower 3rd molar which lack the classical LPC radiographic features mimicking a dentigerous cyst.

CASE PRESENTATION

A 40-year-old male was referred to the department of oral and maxillofacial surgery at Khartoum Teaching Dental Hospital, complaining of a lesion that has been discovered accidentally in a panoramic view (Fig 1) which showed a unilocular radiolucency associated with impacted 48. The patient claimed a history of same lesion on contralateral side which was removed 3 years ago without being biopsied (Fig 2), (Fig 3). Based on the clinical and Radiographic view the diagnosis of dentigerous cyst was implemented. The patient was taken to operation and the cyst was enucleated and associated tooth was extracted (Fig 4). The removed specimen was for histopathology investigation. Later the histopathology report was received which stated as follow: Section showed a benign cystic lesion consists of epithelial lining composed of 3–4 layers of cuboidal cells with some areas display focal thickenings. The capsule of the cyst is fibrocollagenous contains odontogenic rests and small cystic structures. Foci of cementum-like material and dentinoid material is also noted. The cystic cavity contains foci of hemorrhage and cholesterol crystals. Diagnosis: Mandibular / Excisional Biopsy, Features are consistent with Lateral periodontal cyst. The patient was followed for two years and the last panoramic revealed an uneventfully bone defect healing (Fig 5).

DISCUSSION

The lateral periodontal cyst (LPC) is an uncommon but widely recognized odontogenic cyst of developmental origin. Found mostly in adults and has no sex predilection. LPC is usually discovered during routine radiographic examination, mainly located between the roots of vital mandibular canines and premolars, and rarely causes pain or other clinical symptoms. The defect appears on radiographs as a round or ovoid shaped, well circumscribed radiolucency. (1–4,6) With these specific features, the most likely differential diagnosis would be a lateral periapical cyst, odontogenic keratocyst, central giant cell lesion, ameloblastoma, or squamous odontogenic tumor. However some LPC do not fulfill all clinical and radiological typical features and, in these cases, considering LPC as a possible differential diagnosis can...
be quite challenging. (5) Final diagnosis depend upon histological examination of the surgical biopsy. (5) Most reports agree that the treatment of choice is enucleation of the cyst and extraction of the tooth if the tooth involved is a third molar. (8)

CONCLUSION

To our knowledge, this is the first report of a LPC mimicking a Dentigerous cyst location wise and Radiographically.

(Fig 1) Unilocular Radiolucency associated with an unerupted lower left 3rd molar.

(Fig 2) A view 6 years ago
(Fig 3) A view 3 years ago before removing the lower right 3rd molar.

(Fig 4) Cyst lining after being removed.
REFERENCES


