

Lateral Periodontal Cyst: A Case Report

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ABSTRACT

Lateral periodontal cyst (LPC) is an uncommon type of developmental odontogenic cyst that typically occurs laterally on the root surface of a tooth, representing 0.8% of cysts in the jaws. The objective of this article was to describe the diagnosis of LPC based on the clinical, radiographic examination, and histopathological analysis, and to display the treatment of the case. The clinical, radiographic, and histopathological examinations were carried out in the case confirming the diagnosis of LPC. Surgical enucleation was performed on the lesion. In the follow-up of the case there was complete bone regeneration and no recurrences. Although the occurrence of lateral periodontal cyst is rare, the precision of its diagnosis is necessary so that the correct treatment can be established.

Keywords: Lateral periodontal cyst; odontogenic cyst.

INTRODUCTION

The lateral periodontal lateral cyst is a developmental odontogenic cyst defined as a radiolucent lesion, along the lateral aspect of an erupted vital tooth in which an inflammatory etiology and a diagnosis of collateral keratocyst have been excluded based on clinical and histological grounds¹.

Since the last maxillary cyst classification of the World Health Organization (WHO), described by Kramer *et al.* in 1992, lateral periodontal cysts (LPCs) have been regarded as an independent condition².

The clinical manifestations tend to be mild, and the diagnosis is generally established by means of a routine radiological exploration, which reveals a radiolucent image with less than 1 cm in

size in most cases³⁻⁹. LPCs account for between 0.8%³ and 1.5%⁴ of all maxillary cysts.

Case discussion

A 20 year female patient came with a complaint of swelling in the upper front tooth region for the past 2 years. On intra oral examination a swelling was present in the labial aspect extending from 11 to 13 region (fig 1) which was asymptomatic.

Panoramic examination showed a well defined radiolucency which was present in between the middle and apical third of 12 and 13 with divergence of roots (fig 2 and 3).

The swelling was aspirated which contained a yellowish fluid (fig4). The tissue was measuring 1.5 cm * 1cm Surgical enucleation of the cyst was done and sent for histopathologic evaluation . (fig4).



Fig. 1: Shows the swelling extending from 11 to 13



Fig. 5: Postoperative intra oral view



Fig. 2 & 3: Showing panoramic view showing a unilocular radiolucency with divergence of 12 and 13

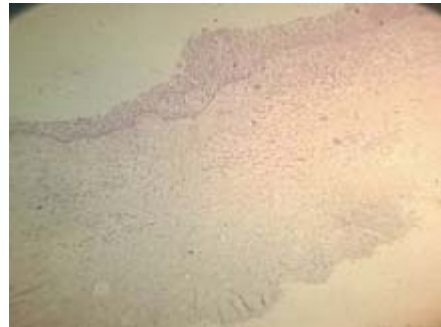


Fig. 6: Showing shows lining epithelium and a connective tissue stroma

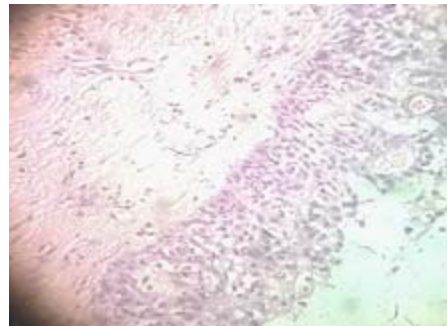


Fig. 7: Showing 8 to 10 layers of lining epithelium



Fig. 4: Shows the enucleated lesion



Fig. 8: Review done after one year

The H and E stained soft tissue section showed a stratified squamous lining epithelium consisting of 8 – 10 cell layer thickness (fig 5 and 6). The epithelial connective tissue interface was flat and devoid of rete ridges. The epithelium showed areas of spongiosis. The stroma was loosely arranged with minimal inflammation.

The histopathologic evaluation was done to rule out any malignancies.

DISCUSSION

The lateral periodontal cyst is a developmental odontogenic cyst which is usually uncommon. It is located along the lateral aspect of a root of a vital tooth. In this case it was seen in the lateral aspect of 12 and 13 region. Lesions has been removed by surgical enucleation. Special care should be taken not do damage the roots of the adjacent teeth. Recurrence is uncommon but has sporadically been reported¹². Here the patient was reviewed periodically (fig7) and no evidence of recurrence.

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