

LATERAL PERIODONTAL CYST: A CASE REPORT

AUTHORS:

Dr. Mayank Singhal¹, Dr. Manoj Goyal², Dr. Sonia Chawla³, Dr. Amit B. Lall⁴, Dr. Sanjeev Tomar⁵, Dr. Anupam Bhardwaj⁶, Dr. Priyanka T.⁷

¹Associate Professor, Department of Oral & Maxillofacial Surgery, Santosh Dental College, Santosh Deemed To Be University, Ghaziabad.

²Professor, Department of Oral & Maxillofacial Surgery, Santosh Dental College, Santosh Deemed To Be University, Ghaziabad,

³Professor, Department of Oral & Maxillofacial Surgery, Santosh Dental College, Santosh Deemed To Be University, Ghaziabad.

⁴Professor and Head, Department of Oral & Maxillofacial Surgery, Santosh Dental College, Santosh Deemed To Be University, Ghaziabad.

⁵Associate Professor, Department of Oral & Maxillofacial Surgery, Santosh Dental College, Santosh Deemed To Be University, Ghaziabad.

⁶Senior Lecturer, Department of Oral & Maxillofacial Surgery, Santosh Dental College, Santosh Deemed To Be University, Ghaziabad,

⁷Resident, Department of Oral & Maxillofacial Surgery, Santosh Dental College, Santosh Deemed To Be University, Ghaziabad.

CORRESPONDING AUTHOR:

Dr. Mayank Singhal

Designation: Assoc. Professor

Department: Department Of Oral & Maxillofacial Surgery

Institution: Santosh Dental College, Santosh Deemed To Be University Ghaziabad

ABSTRACT:

As per the sparse literature, a cystic lesion that grows on the lateral surface of the erupted vital teeth is called as lateral periodontal cyst. This type of cyst is one of the most uncommon developmental odontogenic cysts with an incidence of 0.4% of all odontogenic cysts and 0.7% of all the cysts of the jaw. In this article we report a case of 19 year old female who came to the Department of Oral and Maxillofacial Surgery, Santosh Dental College and Hospital with the chief complaint of swelling on the right side of the face. The

swelling was asymptomatic but was prominently evident extraorally on the right side of the face. Surprisingly, on histopathological examination the lesion came out to be lateral periodontal cyst. Any lesion which appears radiolucent in the radiograph with round or oval well circumscribed border adjacent to the roots of vital teeth can be suspected with lateral periodontal cysts.

KEYWORDS:

Lateral periodontal cyst, cyst maxilla, periodontal cyst, large cyst, and enucleation.

INTRODUCTION:

As per the sparse literature, a cystic lesion that grows on the lateral surface of the erupted vital teeth is called as lateral periodontal cyst. This type of cyst is one of the most uncommon developmental odontogenic cysts with an incidence of 0.4% of all odontogenic cysts and 0.7% of all the cysts of the jaw. It is originated from the remnants of odontogenic epithelium. Majority of patients reported in the literature associated with lateral periodontal cysts are adults in their fifth to seventh decade of life, and a higher incidence of male predilection is observed.¹⁻⁶The most common site for occurrence of these lesions is the mandibular premolar region followed by the maxillary anterior region. Well circumscribed, round or oval radiolucency with a sclerotic margin, usually between the periapical and cervical region of the associated teeth defines the radiographic features of a lateral periodontal cyst. In this article, emphasis has been given to the clinical presentation and the management of the cyst.¹

CASE REPORT:

A 19 year old female patient reported to the Department of Oral and Maxillofacial Surgery, Santosh Dental College and Hospital with the chief complaint of swelling on the right side of the face. The swelling was asymptomatic but was prominently evident extraorally on the right side of the face, obliterating the naso-labial fold at the alar region (Fig 1).



Fig 1: Extraoral swelling on the right side of the face.

On intraoral examination, a well circumscribed swelling was present in the upper buccal vestibule extending from the mesial aspect of the left lateral incisor till the distal aspect of first pre molar measuring approximately 20mm of diameter which was covered with a stretched gingival mucosa and non-tender on palpation (Fig 2).



Fig 2: Intra oral cystic lesion in the right side canine region.

All the teeth associated with the swelling were vital but nontender on percussion. A panoramic radiograph was taken to correlate with the clinical findings and diagnose the lesion. The orthopantomogram depicts as round, well circumscribed radiolucency present in the upper right side of the maxilla in the anterior region extending till the first bicuspid, without buccal cortical expansion. The lesion was diagnosed as lateral periodontal cyst or residual cyst. The case was planned for excision of the lesion under local anaesthesia followed by excisional biopsy for final diagnosis (Fig 3 (a. and b.)) An uneventful major surgical procedure for excision of the lesion was carried out under general anaesthesia with an intraoral approach followed by biopsy. The lesion was finally diagnosed as a lateral periodontal cyst after histopathological examination.



Fig 3a) Exposure of the lesion through intraoral approach.



Fig 3b) surgical excision of the lesion with intact buccal cortical plate

DISCUSSION:

Lateral periodontal cyst is rare odontogenic cyst which commonly involves the alveolar bone along the lateral surface of the vital tooth. They are mostly asymptomatic due to which they are diagnosed as accidental findings unlike our case where the patient presented with an intraoral swelling which was extraorally evident. ¹

In the literature, these lesions are reported to occur in the fifth to seventh decade of life and most commonly found in male patients and the most common site being the lower jaw¹⁻⁶ whereas the case which is presented in this article is a 19 year-old female patient with the lesion in the upper right side of the jaw.

The origin or the Etiopathology mentioned in the literature for these lesions are namely, the reduced enamel, remnants of dental lamina, and cellular remnants of Malassez.²

The radiographic features of this cyst is described as a solitary, well-defined round-

oval shaped radiolucency lateral to any vital tooth or teeth ⁴ which is evident in our case. Rasmussen et al⁷ conducted a study on 32 patients who reported with lateral periodontal cysts with different sizes. After evaluation of the cysts sizes, the average size recorded was 2.5 to 15mm. Cohen et al ⁸ conducted another study on lateral periodontal cysts where the average size recorded was comparatively smaller than the usual cysts recorded that are 10mm of diameter.

CONCLUSION:

Any lesion which appears radiolucent in the radiograph with round or oval well circumscribed border adjacent to the roots of vital teeth can be suspected with lateral periodontal cysts. Surgical excision of the lesion is the choice of treatment for this particular cyst and a confirmatory histological examination is required subsequent to the surgery. Recurrence of these cysts is quite rare.

References

1. Márcia de Andrade & Ana Paula Pantosi Silva & Flávia Maria de Moraes Ramos-Perez & Yara Teresinha Corrêa Silva-Sousa & Danyel Elias da Cruz Perez. Lateral periodontal cyst: report of case and review of the literature. *Oral Maxillofac Surg* (2012) 16:83–87
2. Lateral periodontal cyst: report of case and review of the literature. Luis Felipe das Chagas e Silva de Carvalho, Celina Faig Lima, Luiz Antonio Guimarães Cabral, Adriana Aigotti Haberbeck Brandão, Janete Dias Almeida. *J Oral Maxillofac Res* 2010 (Oct-Dec);1(4):e5
3. Nart J, Gagari E, Kahn MA, Griffin TJ (2007) Use of guided tissue regeneration in the treatment of a lateral periodontal cyst with a 7-month reentry. *J Periodontol* 78:1360–1364
4. Standish SM, Shafer WG (1958) The lateral periodontal cysts. *J Periodontol* 29:27–33
5. Cohen DA, Neville BW, Damm DD, White DK (1984) The lateral periodontal cyst. A report of 37 cases. *J Periodontol* 55:230–234
6. Carter LC, Carney YL, Perez-Pudlewski D (1996) Lateral periodontal cyst. Multifactorial analysis of a previously unreported series. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod* 81:210–216
7. Rasmussen L, Magnuson B, Borrmann H. The lateral periodontal cyst: a histopathological and radiographic study of 32 cases. *Br J Oral Maxillofac Surg* 1991;29:54-7.
8. Cohen D, Neville B, Damm D, White D. The lateral periodontal cyst: a report of 37 cases. *J Periodontol* 1984;55:230-4.