



A Case of Follicular Cyst in Lower Right Mandibular Region – A Case Report

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ABSTRACT

A Follicular or Dentigerous cysts are the second most common type of odontogenic cysts. They are formed over the unerupted or partially erupted tooth like fluid filled sac and can further lead to infections if left untreated. Follicular cysts are benign and are most common in the age group of 20- 30years. Smaller follicular cysts do not show any symptoms but as it grows larger than 2cm, patient starts experiencing tooth pain, sensitivity, swelling or displacement of teeth occasionally. Generally the treatment of choice is enucleation or marsupialization along with infected tooth removal, but the treatment options may vary depending on size and location of the cystic lesion.

Keywords: Benign, Enucleation, Follicular cyst, Marsupialization, Diagnosis.

Material and method:

30 year old male patient was referred to the department of oral and maxillofacial surgery with complaint of pain in his lower right back tooth region since 2 weeks. Patient felt pain and discomfort on chewing which was severe, intermediate, non radiating and was accompanied with numbness on the same region. With the diagnosis of follicular cyst the lesion was successfully treated by surgical enucleation along with removal of infected tooth and follow up was done for 3 weeks.

Results:

The postoperative clinical and radiographical evaluation showed no signs of recurring pathology or

infection. Patient showed satisfactory wound healing and bone formation with full form and function. Routine dental check-up was advised to the patient as such anomalies can be diagnosed early and can be treated with minimum intervention.

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Introduction:

Dentigerous cyst is the second most common odontogenic cyst affecting the jaw bone⁽¹⁾ and constitutes around 20-24% of all the odontogenic cysts.⁽²⁾ Dentigerous cysts or Follicular cyst are mostly asymptomatic in early stages. As the lesion grows patient presents with symptoms of pain and sensitivity in the involved tooth.⁽³⁾

Dentigerous cyst are usually noticed during routine clinical and radiographic examination as they appear as well defined border with unilocular radiolucency surrounding the crown of the unerupted or partially erupted tooth. Most common treatment method followed is the surgical enucleation for smaller cyst and Marsupialization for larger cyst along with infected tooth removal.⁽⁴⁾

Almost 75 percent cases most commonly involve the impacted lower third molar, second most common is upper third molar followed by maxillary canine and mandibular second premolar. These are rarely observed in canines.⁽⁵⁻⁶⁾

Case report:

A 30 year old male patient visited the department of oral and maxillofacial surgery, the Oxford Dental College for evaluation of the pain and discomfort in his lower right back tooth region. Patient gave history of pain as insidious in onset, intermittent in nature, severe in intensity, aggravates on chewing and gets relives by its own.

Extra-oral examination:

Gross asymmetry of the face was observed on lower right side of face. The overlying skin showed no signs of inflammation. The swelling measured 4*3cm approximately (length* width) and was tender on palpation with bony hard consistency. Lymph nodes were non- palpable and non-tender. No Neurological deficit was noted on right side of face.

Intra-oral examination:

Revealed a hard- tender swelling in the lower right vestibular region extending from distal of lower right first molar to 3-4cm distal to second molar extending to ramus region measuring 5 cm*3cm*3cm in length, width and height respectively. Swelling was tender on palpation and erythematous with occasional pus discharge from the pocket distal to second molar. Teeth (47, 46) were tender on percussion, pulp vitality was performed to check the vitality of 46 and 47 to rule out any underlying periapical/ periodontal pathology and the teeth were vital. Vestibular obliteration was observed from distal to first molar. On palpation there was expansion of buccal and cortical plates extending distal to 46.

Differential diagnosis:

Periapical cyst, eruption cyst, odontogenic keratocyst, radicular cyst

Radiographic evaluation: (fig 1)

OPG revealed unilocular radiolucent lesion with thin well-defined radio-opaque sclerotic border extending posteriorly 2 cm away from the roots of inverted impacted tooth (48), anteriorly involving the mesio-buccal root of first molar (46), inferiorly 1.5 cm above the lower border of mandible and superiorly 1.8 cm below the alveolar ridge. Obliteration of mandibular canal was noted with loss of normal trabecular pattern of bone.

Provisional Diagnosis:

Radicular cyst, eruption cyst and dentigerous cyst.

Treatment plan:

Based on the history and correlating it with the radiographic and clinical evaluation, a conservative treatment plan of surgical enucleation of the cystic lesion with 2mm of healthy bone and tissue was performed along with removal of involved tooth (46, 47, and 48) under general anaesthesia. The specimen was sent for histological evaluation. Irrigation of infected area was done with betadine and normal saline and the bony edges were smoothed. Primary haemostasis was achieved and wound was sutured with further dressing. No bone grafts were used for the surgical bed as the idea was to initiate primary wound healing where the clot would act as a scaffold for osseous remodelling and growth. Patient was kept on antibiotics and analgesics for 5 days. The excised mass comprised of cyst along with cystic lining of tissues and the involved tooth (figure 2)

Histological evaluation: (figure 3)

- The epithelium was 3-4 layers thick which was non -keratinized with irregularly arranged flat end cells.
- No retepeg formation was noticed.
- Primarily the specimen consisted of fibroblastic tissue which had mucopolysaccharide entrapments.
- Linear and curved hematogenous bodies were noticed which resembles rushton bodies.
- Inflammatory infiltrate – lymphocytes and neutrophils were present in the watery blood tinged aspirate.
- Incompletely formed 48 (incomplete root formation) in the cystic cavity- resembling a circumferential variety of dentigerous cyst.

Follow-up:

Follow up was done for 3 weeks. Post operatively OPG did not show any signs of recurrence or infection. satisfactory wound healing was observed clinically.

Discussion:

Dentigerous or follicular cyst is the most common type of non -inflammatory odontogenic cyst. Dentigerous cyst is an entity derived from remnants of

dental organ and reduced enamel epithelium and is attached to crown of the unerupted or partially erupted tooth (1)

Different variants of dentigerous or follicular cyst has been reported like central type, lateral type and circumferencial type which involves the whole tooth and are difficult to differentiate from keratocyst odontogenic tumour hence, histopathological examination is mandatory for confirmation of the diagnosis(6)

Treatment modalities like marsupialization with iodoform or enucleation are preferred depending on the size of the lesion. (7) Main aim of treating dentigerous cyst is complete removal of the pathology with minimal surgical intervention.

Conclusion:

The presented case is of follicular or dentigerous cyst in a 30 year old male patient with inverted and impacted third molar 48. These types of cases should not be diagnosed only on basis of clinical modality. Radiographic and histopathological examination is mandatory for confirmation of the underlying pathology and follow up of the patient should be carried out to check for any recurrence and infection. Conservative treatment methods with minimal intervention should always be the priority for smaller cystic lesion.

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FIGURE 1: Pre Operative OPG Of Patient Depicting Radiolucent Lesion Involving 46, 47 and 48.



FIGURE 2: Clinical Picture of The Excised Lesion



FIGURE 3: Histopathological picture of follicular cyst

