

AN ATYPICAL APPEARANCE OF ODONTOGENIC KERATOCYST – A CASE REPORT



Thirumagal Murugan¹, Jayachandran Sadaksharam²

Postgraduate student¹, Professor and Head²

Department of Oral Medicine and Radiology, Tamilnadu Government Dental College and Hospital, Chennai, India

Affiliated To Dr.M.G.R Medical University, Chennai

INTRODUCTION- The term ‘odontogenic keratocyst’ was first used in 1956 to describe an odontogenic cyst lined with keratinized stratified squamous epithelium[1]. The mandible is involved more frequently than the maxilla. About 65-83% of OKCs occur in the mandible[2].

PATIENT DESCRIPTION

A 34-year-old male reported to the department with a chief complaint of pain and swelling in the right lower back teeth region for 15 days, in which swelling was gradual in onset.

CLINICAL EXAMINATION

- Extra-orally, mild swelling in the right mandibular region extending slightly below the lower border, which is tender on palpation & firm in consistency
- Intraoral swelling in the right retromolar region extending slightly upwards behind the maxillary tuberosity, which is soft in consistency and tender on palpation

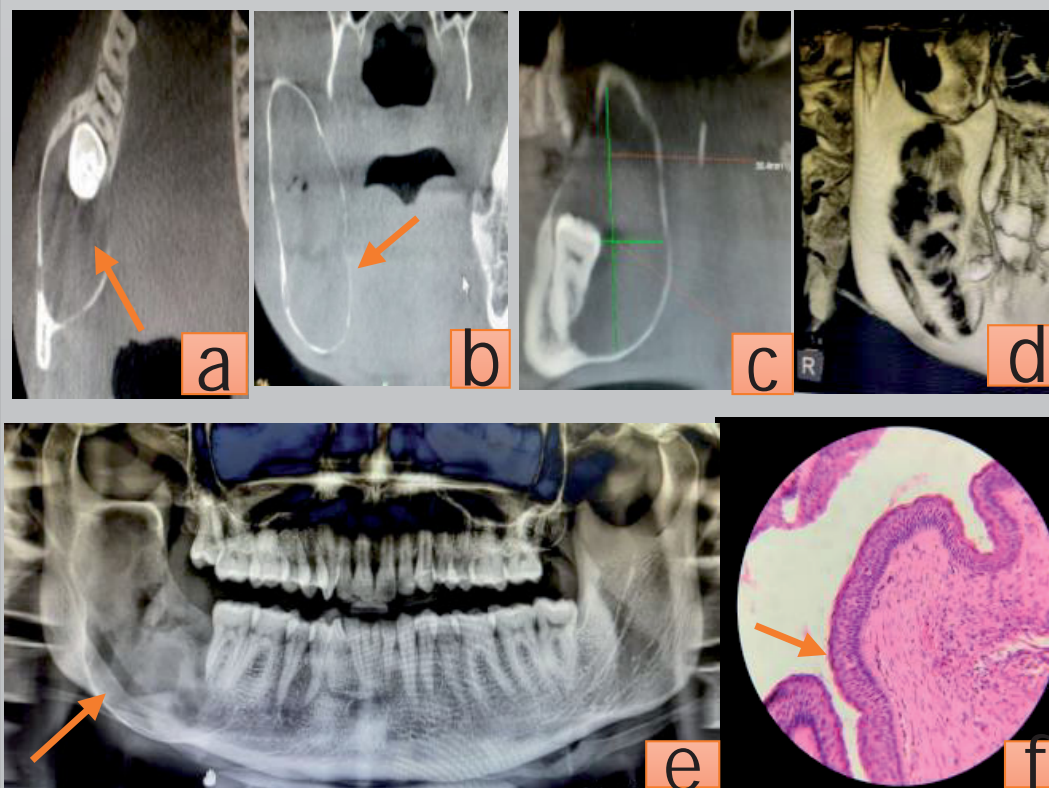


INVESTIGATIONS

1. Positive Aspiration with purulent material and blood mixed with it.

2. Biochemical analysis

TOTAL PROTEIN	5.8 g/dL
ALBUMIN	3.0 g/dl
GLOBULIN	2.8 g/dl



3. Orthopantomogram & Cone beam computed tomographic imaging – a) AXIAL SECTION – showing hypodense soft tissue density involving the impacted tooth 48 with minimal bucco-lingual expansion at the level of cervical region of adjacent teeth **b) CORONAL SECTION** – showing hypodense soft tissue density at its maximum circumference and superiorly up to the ascending ramus with absence of scalloping border and septa **c) SAGITTAL SECTION** – hypodense soft tissue density surrounding the impacted teeth with minimal bi-cortical expansion **d) 3D RECONSTRUCTION** – Osteolytic bone with thinning out of cortical plate involving ascending ramus of mandible

e) OPG taken after incisional biopsy along with removal of impacted teeth showing radiolucency extending from the apical region of 47 up to the sigmoid notch **e) Histopathologic picture** showing para-keratinized epithelium

FINAL DIAGNOSIS

Odontogenic keratocyst of right posterior body of mandible

TREATMENT PLAN

Extraction of associated teeth and enucleation with primary osteotomy

DISCUSSION

- In 25-40% of cases, there is an unerupted tooth involved in the lesion.
- On panoramic radiography, mandibular unilocular OKCs may show few and incomplete septa within the lesions; this finding is more common in larger than in smaller OKCs [3]
- **Why this atypical? – Usual scalloping and septa are absent.**

CONCLUSION

Definite diagnosis of OKCs on a clinical and radiographic basis is not possible. But with appropriate and advanced imaging modalities, we can strongly suspect this entity, and they help us in selecting the necessary treatment protocol.

REFERENCES

- 1) Polak K, Jędrusik-Pawłowska M, Drozdowska B, Morawiec T. Odontogenic keratocyst of the mandible: A case report and literature review. Dental and medical problems. 2019 Oct 1;56(4):433-6.
- 2) Nair KK, Lingappa A, Rangaiah P, Vittobarao PG. Keratocystic odontogenic tumor: A case report and review of literature. Journal of Indian Academy of Oral Medicine and Radiology. 2015 Apr 1;27(2):253.
- 3) Borghesi A, Nardi C, Giannitto C, Tironi A, Maroldi R, Di Bartolomeo F, Preda L. Odontogenic keratocyst: imaging features of a benign lesion with an aggressive behaviour. Insights into imaging. 2018 Oct;9(5):883-97.