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Odontogenic Keratocyst in A 25-Year-Old Male- A Case Report

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Case Report
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ABSTRACT

Many types of diseases and lesions occur in the human body. The oral cavity is also involved in this aspect. Many lesions, conditions, and injuries occur in the oral cavity like precancerous lesions, tumours, and trauma. One such condition that involves the oral cavity is a cyst. There are various types of cysts like a lateral periodontal cyst, dentigerous cyst, globulomaxillary cyst, etc. One of such cyst is an odontogenic keratocyst. This case report reviews such a case of odontogenic keratocyst in a male patient in his lower jaw.

Keywords: Odontogenic Keratocyst, Idoform Graft, Mandible.

Introduction

Odontogenic keratocyst (OKC) is a cyst derived from remnants of the dental lamina. This is the most interesting of jaw cysts. The term odontogenic keratocyst was first used by Philipsen in 1956. It is named keratocyst because this cyst produces so much lumen that it fills the entire lumen. Odontogenic keratocyst is a primordial cyst i.e. forms in place of a tooth. The mandible is more affected than the maxilla (3:1ratio). Most of the cysts occur in the ramus – third molar area, followed by the second and first molar area and anterior mandible. in the maxilla, the most common site is the third molar area followed by the cuspid region.

Multiple OKCs are seen in GorlinGolz Syndrome.[1] OKC is the most aggressive of jaw cysts.

WHO classified it as a cyst in 1971 and 1992 but later it was renamed, 'Keratocystic odontogenic tumor', by WHO classifications of head and neck tumors in 2005. But, later, WHO classification of head and neck pathology classified it back into cyst categeory in 2017.[2]

Clinical Features: OKCs can develop in association with an unerupted tooth or as solitary entities in bone. OKCs usually causes no symptoms, although mild swelling may occur. Pain may occur with secondary infection. Aspiration of the cavity may reveal a thick, yellow, cheesy material (keratin). In contrast to other odontogenic cysts, OKCs have a great propensity for recurrence, possibly because of small satellite cysts or fragments of epithelium left behind after surgical removal.[3]

Radiographic Features: Although odonotogenic keratocysts can occur anywhere in the jaws, the most commonly arise in the posterior body of the mandible (90% occur distal to the canine teeth) and mandibular ramus (>50%). The epicenter is located superior to the inferior alveolar canal. Occasionally OKCs may develop in association with the crown of an unerupted or impacted tooth and may be difficult to distinguish from dentigerous cysts. A change to the contour of the follicle coronal to the cementoenamel junction in an OKC, where the follicle enlarges smoothly and uniformly from the cementoenamel junction, is one way to distinguish this lesion from a dentigerous cyst. OKCs have a well-defined and corticated periphery. The periphery is smooth, but its border may scallop a thick bone cortex. The internal structure is most commonly radiolucent. The presence of internal keratin does not increase the radiopacity. In some cases, curved internal septa may be present, giving the lesion a multilocular appearance. An important characteristic of the OKC is its propensity to grow through the bone without significant bone expansion. This "tunnelling" type of growth pattern with minimal expansion occurs throughout the body of the mandible except for the ramus and coronoid process, where considerable expansion may be seen due to the very thin nature of the bone in these locations. This tunnelling effect can also be seen within the alveolar process of the maxilla Adjacent to airspace such as the nasal fossa or maxillary sinus, OKCs expand in a concentric and hydraulic manner that is more classical for a cyst; as the cyst enlarges, it can reduce the volume of the adjacent airspace. OKCs occasionally displace teeth and resorb tooth roots, but to a lesser degree than dentigerous cysts.[4] This article reviews a case of OKC on the left side of the mandible.

Case Report: A 25year old man reported to the department of oral medicine and radiology at Guru Gobind Singh Dental College, Burhanpur on 13 June 2017.

His chief complaint was swelling in the lower left back region of the mandible for 15 days. Examination showed swelling in the lower 1/3rd of the face on the left side of the mandible. The swelling was firm and fluctuant in nature. It was non tender on palpation.

On inspection, a diffuse ill-defined swelling was present from the first premolar to the second premolar of size approximately 3* 4 cm, extending from attached gingiva to buccal vestibule. On palpation, the swelling was firm and non-fluctuant in nature. According to the investigation, aspiration of swelling was done, which was found negative.

For further investigation, a panoramic radiograph was advised. The radiograph showed well-defined radiolucency involving the first and second premolar and first molar on the left side of the mandible. For further investigation, an occlusal radiograph was taken which showed bone resorption and expansion of buccal cortical plate in the same region. Based on clinical and radiographic findings, a final diagnosis of odontogenic keratocyst was made. Differential diagnosis of odontogenic keratocyst was made as ameloblastoma and aneurysmal bone cyst.

Under general anaesthesia, partial left mandibulectomy was performed from the first premolar region up to the ramus area. The deficiency was packed with an iodoform gauge. The patient was kept on follow-up.

Discussion: Odontogenic keratocyst is an aggressive cyst, derived from cell rests of the dental lamina. The nature of odontogenic keratocyst either cystic or tumor has been a matter of discussion since decades. WHO has given the name odontogenic cystic tumor in 2004. Here, we have presented a case of odontogenic keratocyst in the left side of the mandible.

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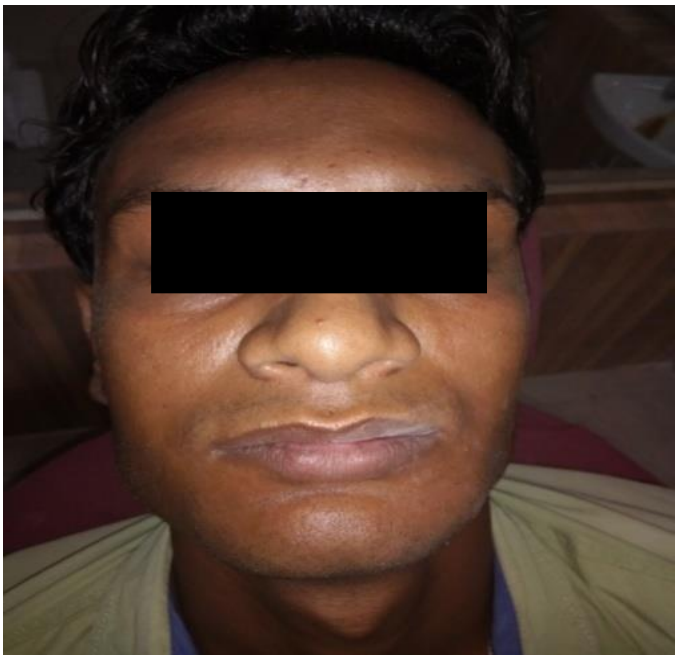
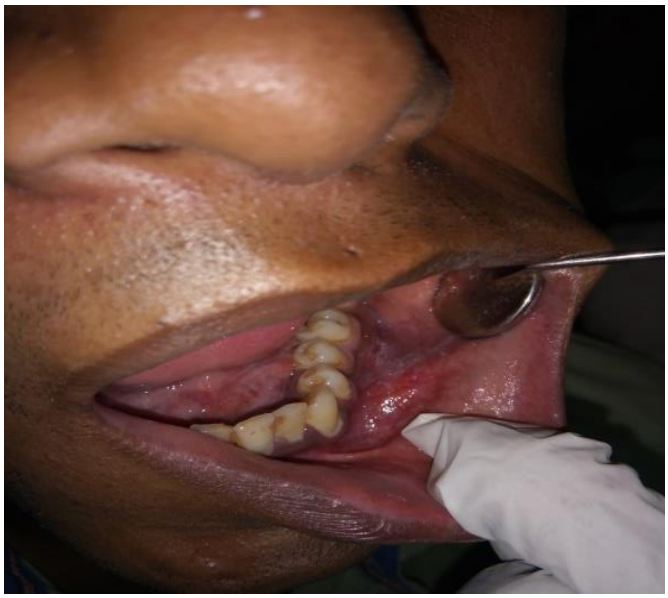


Profile picture of the patient



Lesion on left side of lower lip

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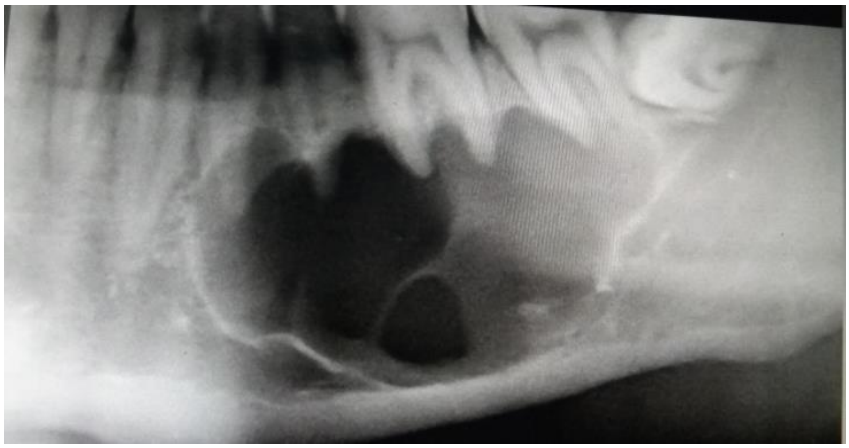
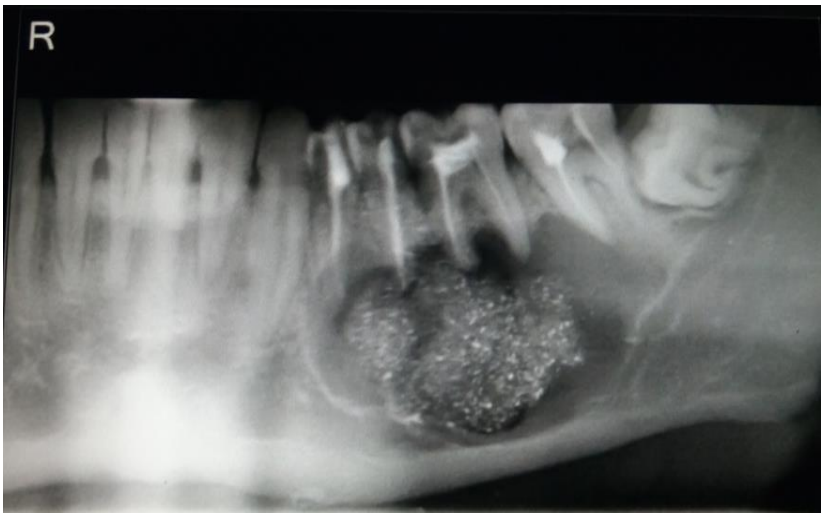


Panoramic radiograph of the patient showing radiological extent of the lesion.



Lesion was removed and an idoform graft was placed in the same region

Conclusion

Human body has suffered and lived with nature since its evolution. Microorganisms, pathogens, bacteria and viruses are a part of nature since evolution of mankind and have lived with it since millions of years. Every part of human body is susceptible to injury, diseases and invasion by pathogens and microorganisms; oral cavity is no such exception. There are several lesions that occur in oral cavity like leukoplakia, kaposi sarcoma, oral thrush, white sponge nevus, odontogenic and non odontogenic cysts and tumors and many others.

This article reviews a case report of an odontogenic keratocyst, that was unforeseen during radiological examination of a painless swelling in mandible that was seen during clinical examination of the oral cavity. Based on radiological examination, a final diagnosis of odontogenic keratocyst was made. The lesion was removed and an Idoform graft was placed in the region.

The main conclusion of the article was not to write a case report but to mention that a proper and thorough clinical examination, radiological, pathological can reveal the unhidden diseases and oral cavity that many be missed in several circumstances.

References

1. Shafer textbook of oral pathology 5th edition page no. 365.
2. Odontogenic keratocyst (OKC), journey from cyst to tumor to cyst again; Deepak Passi, Deepika Singhal, Mahinder Singh, Vijay Mishra et. al, International Journal of Current Research Vol. 9, Issue, 07, pp.54080-54086, July, 2017.
3. White and Pharaoh Principles and interpretation 2nd south east Asia edition, page no.1140.
4. White and Pharaoh Principles and interpretation 2nd south east Asia edition, page no.1141- 1146.

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