



Full Length Research Article

UNCOMMON COMPLICATION OF EPIDERMOID CYST CAUSING RESORPTION OF TMJ – A RARE CASE REPORT

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ABSTRACT

Profitability Epidermoid cysts are cystic malformations lined with squamous epithelium; they constitute 1.6% to 6.9% of all cysts in the head and neck area. It is a benign tumour that originates from an ectopic ectodermal tissue commonly affects the males of 3rd and 4th decade. Here we present a case with an uncommon complication affecting a female of 2nd decade.

INTRODUCTION

An epidermoid cyst is a benign tumor that originates from an ectopic ectodermal tissue. The most likely theory of its origin is that it is caused by the movement of epidermal tissue when a neural canal is closed at 3-5 weeks of fetal age (Pear, 1970). The epidermoid cyst is twice common in men than women. Although epidermoid cyst can occur at all the age group and most commonly reported in 3rd and 4th decade of the life (Shafers Text book of Oral Pathology). Here we present a case of 15 year old female in her 2nd decade affected with an uncommon complication.

Case report

A 15 year old female patient reported to the department of oral medicine and radiology with the chief complaint of swelling in the left pre auricular region for past 5 months. History reveals that the patient had swelling in the pre auricular region 1 year ago for which she visited a private dentist and she underwent incision and drainage followed by extraction of her lower left molars. Her past medical history was not contributory.

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On extra oral examination, the patient has mild facial asymmetry in the middle third of the face on the left side. On inspection a single well defined swelling measuring 2.5 cm X 2.5 cm approximately is seen in the pre auricular region with erythematous surface. On palpation the swelling was firm, compressible, tender and fixed to the underlying structure. (Fig.1 & 2) On intra oral examination the number of teeth present is 28, missing of 36, 37, 38 & 46. With this a provisional diagnosis of epidermoid cyst was given. Differential diagnosis include lymphadenitis, parotitis, pleomorphic adenoma. Following which FNAC was done which yields straw color fluid, microscopically reveals numerous inflammatory cell predominantly neutrophils. Also lymphocytes, plasma cells, macrophages and scanty keratinocytes were seen suggesting an abscess. Routine radiological investigation OPG (Fig.3) revealed morphological alteration in the left head of the condyle, suggestive of resorption of the head of the condyle. Another radiological investigation such as TMJ tomography were taken which revealed the same (Fig-4). Further investigation were carried out with CT (Fig-5 & 6) which revealed left infra temporal fossa illdefined soft tissue density with destruction of condyle and peripherally enhancing collection as described likely osteomyelitis of the mandible.



Fig. 1. Profile picture



Fig. 2. lateral



Fig. 3. OPG reveals morphological alteration of left condyle



Fig. 4. TMJ Tomography reveals morphological alteration of left condyle

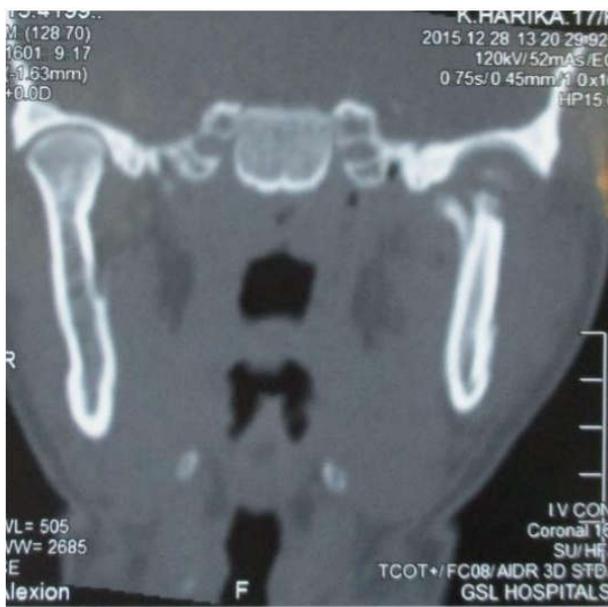


Fig 5. Coronal view of CT reveals destruction of left condyle

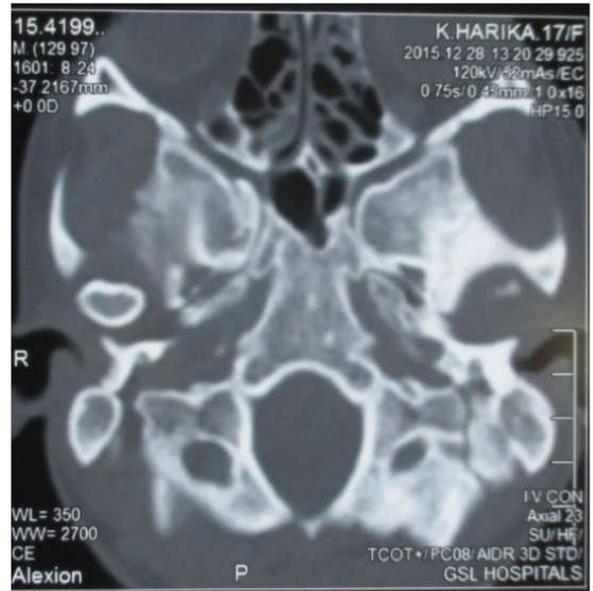
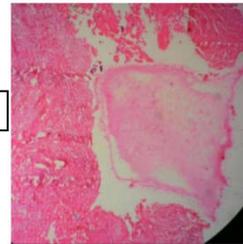
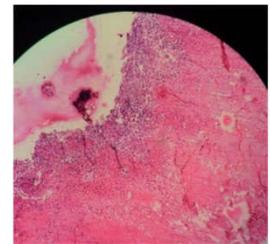


Fig. 6. axial view of CT reveals destruction of left condyle



40 X



10 X

Fig. 7. Connective tissue which is devoid of epithelium and contains inflammatory cells



Fig. 8. Six month follow

After obtaining the radiological diagnosis, the surgical procedure was carried out under general anesthesia. The obtained specimen was sent for histopathological evaluation, which revealed connective tissue which is devoid of epithelium and infiltrated densely with acute and chronic inflammatory

cells with areas showing homogenous eosinophilic keratinisation suggesting infected epidermoid cyst (Fig 7). Patient is currently under follow up for past 6 months (Fig 8 & 9).

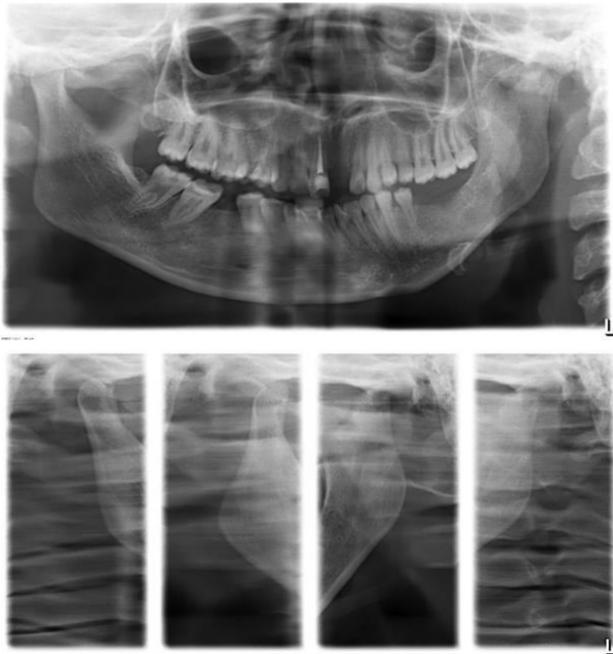


Fig 9. Six month follow up OPG and TMJ tomography reveals no further resorption

DISCUSSION

An epidermoid cyst is a benign tumor that originates from an ectopic ectodermal tissue. The most likely theory of its origin is that it is caused by the movement of epidermal tissue when a neural canal is closed at 3-5 weeks of fetal age (Pear, 1970). The epidermoid cyst is twice common in men than women. Although epidermoid cyst can occur at all the age group it is most commonly reported in 3rd and 4th decade of the life (Shafers Text book of Oral Pathology). Our case was an uncommon since it affects the female patient of the 2nd decade which was a rare. Epidermoid cysts, may arise in any part of the facial skin or neck, but they are most common in the mid cheek and pre auricular area (Robert E Marx Text Book of Oral & Maxillofacial Pathology). Our case also presented in the pre auricular region which is the common site of occurrence. About 80% are painless, solitary masses, and the other 20% are painful because of secondary infection. Most are freely movable within the skin, but some are fixed because of fibrosis from repeated infections (Lucas, 1999). Our case presented with swelling associated with pain and was fixed. Epidermoid cyst may form by the sequestration and implantation of epidermal rest during embryonal period, occlusion of the pilosebaceous unit, oriatrogenic or surgical implantation of epithelium (Ambo *et al.*, 2003). Abrams MB, has reported a case of epidermoid cyst after the Temporo mandibular joint surgery (Lucas, 1999).

In our case there was no such history of surgery or trauma in the site of occurrence. Epidermoid cysts of the skull are slow growing and are sometimes detected accidentally on radiographic examination of the skull. The cause of punched-out bony defect of the skull is thought to be long-term continuous pressure by the cyst resulting in the bone defect called scalloping (Abrams *et al.*, 1977). Our case presented with an epidermoid cyst in the pre auricular region for a longer duration where the head of the condyle is present, eventually leading to the resorption of the head of the condyle due to its pressure effect. Cee NocKe has reported a case of epidermoid cyst in the ramus of the mandible mimicking a OKC.7To the best of our knowledge this is the first case report with an uncommon complication presented with resorption of head of the condyle due to the pressure effect. Surgical removal seems to be the mainstay in the management protocol and recurrence is also commonly noticed. Malignancies have been identified in epidermoid cysts as a complication in long standing infection. An unusual complication reported from an oral epidermoid cyst was sialadenitis due to its pressure effect (Shafers Text book of Oral Pathology). In our case, a complete surgical enucleation was performed to reduce the pressure and the patient was currently under follow up for past 6 month and no further resorption of condyle was noticed.

Conclusion

Epidermoid cyst are one of the cyst that is noticed commonly, which is a benign cyst that has a potential to end with an unexpected complication as we noticed in our case. Hence all the cysts including epidermoid cyst should be diagnosed in early stage can prevent the unpredicted complications. Dentist should be aware of any swelling that occur in pre auricular region and epidermoid cyst should also considered in the differential diagnosis.

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