

# Anteriorly Extending KCOT -Case Report with Review of Literature Regarding Choosing of Treatment Modality



## Medical Science

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### ABSTRACT

*KCOT is an aggressive but benign lesion with high rate of recurrence .The lesions mode of growth can result in late diagnosis of the lesion with out having any significant bony expansions.here we present a case with anteriorly extending KCOT which remained almost undiagnosed and was treated conservatively considering the age and systemic condition of the patient.*

### Introduction

OKC is cyst of developmental origin .it was first described by phillipsen in the year 1956..World Health organization now refers it as KCOT,keratocystic odontogenic tumour.Though the lesion is benign it has high infiltrative behavior and are aggressive with high rate of recurrence <sup>1</sup>.Unless associated with any syndromes like Gorlin Golt syndrome or Nevoid basal cell carcinoma syndrome most of the OKCs are solitary<sup>2</sup>.KCOTs arises from cell rests of dental lamina<sup>4</sup>.KCOT tends to grow within the medullary cavity of the bone without causing any significant expansion often resulting in the late diagnosis of the same .they tend to grow in an anteroposterior direction with in the medullary cavity with 25-40% cases there is an unerupted tooth<sup>3</sup>.The histopathological reason of the recurrence of the lesion is its thin ,friable wall which can result in incomplete removal of the lesion and also the presence of satellite cysts with in the fibrous wall<sup>3</sup>.owing to its aggressive nature the treatment for the lesion is still controversial

### Case Report

**A 21 Year old female consulted our institution for correction of orthodontic correction of malocclusion(FIG 1).**



**FIG 1- PREOPERATIVE PIC**

On Routine radiographic evaluation we found out a cystic lesion with an impacted teeth in relation to left mandibular premolar region (FIG-2).



**FIG 2- OPG**

On clinical examination the patient had a retained deciduous teeth in relation to 75 and missing teeth in relation to 35 . There was no significant expansion palpable on the affected side buccally or lingually on intra oral palpation or any other facial deformity on external appearance . detailed evaluation of the patient was done with 3D –CT ( FIG 3) and found out that there is severe thinning of the buccal cortex .The lesion lesion appeared to be unilocular (FIG-2)



**FIG 3- 3D CT**

Evaluating the systemic status she was found to have ASD .So it was decided to treat her as conservatively as possible.

A crevicular incision with vertical release incision placed anteriorly and mucoperiosteal flap elevated .The thinned bone on the beccal aspect was removed with bone rongauer .the lesion was removed along with lining( FIG -4) and the impacted premolar (FIG -5)along with the retained deciduous teeth was extracted



FIG 4-REMOVAL OF CYSTIC LESION

The cystic cavity was treated with cornoys solution for 3 minutes and primary closure( FIG-5) of was done following thorough irrigation .



FIG-5-PRIMARY CLOSURE

On histopathological examination it was found to be KCOT of orthokeratinised type.

### Discussion

Eventhough various modalities are available in literature about the treatment the optimum goal should be to minimize the morbidity for the patient with least chance of recurrence .Various factors like age ,size and location of the cyst ,involvement of soft tissue ,previous histologic variant of the lesion in case of recurrence etc

Decompression and marsupialization ,first suggested by Partsch is the first recommended treatment for the lesion ,commonly known as Partsch1 procedure .Partsch also recommended enucleation and primary closure of the cystic lesion which is known as Partsch ii technique.Although many authors contradict this way of treatment .They depend on the fact that this technique does not remove the lesion in total which can result in the proliferation of the

same and recurrence<sup>5,6</sup> .Many find it a good line of treatment as it allows for the decrease in size of the lesion ,therby preserving vital structures.

In 2005 Pogrel described the marsupialization technique which involves creating a 1 cm window and attempt to suture the cystic lining to the oral mucosa.In the maxilla the cystic cavity is often packed with iodoform gauze impregnated with bacitracin which on removal will result in a self retaining cavity which the patient need to irrigate twice daily to prevent food accumulation.in mandible he suggested the use of nasopharyngeal anaesthesia tube as there is high chance of early closure of the fistulous tract .He observed that with decompression and marsupialization the lining appears to come thicker which makes it easier to enucleate and there is a histologic change of the same which resemble oral mucosa.he concluded the technique as having high success rate.

Enucleation of the whole lesion with or with out adjuncts are also used as a line of treatment for KCOT.the adjuncts include mechanical techniques ( hand curettage, rotary )<sup>9</sup> alone or in combination with Carnoys solution or Cryo-surgical agents like liquid nitrogen<sup>10,11</sup>

Block resection with or with out the preservaation of the jaw continuity is also advocated as a line of treatment .but the extremity and morbidity of the procedure for the treatment of a benign lesion is questioned by many authors<sup>12,13</sup> .

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