

原文題目(出處)：	Surgical management of dentigerous cyst and keratocystic odontogenic tumor in children: a conservative approach and 7-year follow-up. J Applied Oral Sci 2012;20:268-71
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報告日期：	2013/01/08

內文：

### I. Abstract:

- Dentigerous cyst (DC) is one of the most common odontogenic cysts of the jaws and rarely recurs.
- Keratocystic odontogenic tumor (KCOT), formerly known as odontogenic keratocyst (OKC), is considered a benign unicystic or multicystic intraosseous neoplasm and one of the most aggressive odontogenic lesions presenting relatively high recurrence rate and a tendency to invade adjacent tissue.
- Two cases of these odontogenic lesions occurring in children are presented. They were very similar in clinical and radiographic characteristics, and both were treated by marsupialization. The treatment was chosen in order to preserve the associated permanent teeth with complementary orthodontic treatment to direct eruption of the associated permanent teeth.
- At 7-years of follow-up, none of the cases showed recurrence.

### II. INTRODUCTION

	Frequency	Treatment
Odontogenic cyst	Low in children 4~9% in 1 <sup>st</sup> decade	Impaction – entire removal Eruption possible – conservative
Keratocystic odontogenic tumor	54.2% in 2 <sup>nd</sup> , 3 <sup>rd</sup> , 4 <sup>th</sup> decade	Decompression, marsupialization, enucleation

- Following by two cases of odontogenic lesion (dentigerous cyst & keratocystic odontogenic tumor), which were treated by marsupialization in order to preserve the associated permanent teeth.

### III. CASE REPORT

[Case 1]

Patient

- 8 y/o, male

Chief complaint

- Volume augmentation at left mandible, pain and fever for 1 week

Radiographic findings

- Unilocular radiolucent cystic lesion with sclerotic border associated lateral incisor, canine, 1<sup>st</sup> and 2<sup>nd</sup> premolars. Teeth dislocated apically and medially

Further examination

- Local bone aspiration, incisional biopsy

Microscopic findings

- Capsule fragment lined by non-keratinized epithelium. Hemorrhagic areas were present.

Histological diagnosis

- Dentigerous cyst

**Treatment**

- Marsupialization under local anesthesia after extraction of the primary molars. The oral mucosa was sutured to the cyst capsule and iodoform gauze dressing was inserted within lesion cavity.
- Medication gauze was changed every 5 days until the wound edges were epithelialized and afterwards an acrylic plug was inserted in order to keep wound opening and decompression.
- The parents were instructed to irrigate the cavity twice a day with saline solution and the acrylic plug was fitted when necessary, attending lumen reduction.
- Radiographic follow-up was performed periodically.

**Follow-up results**

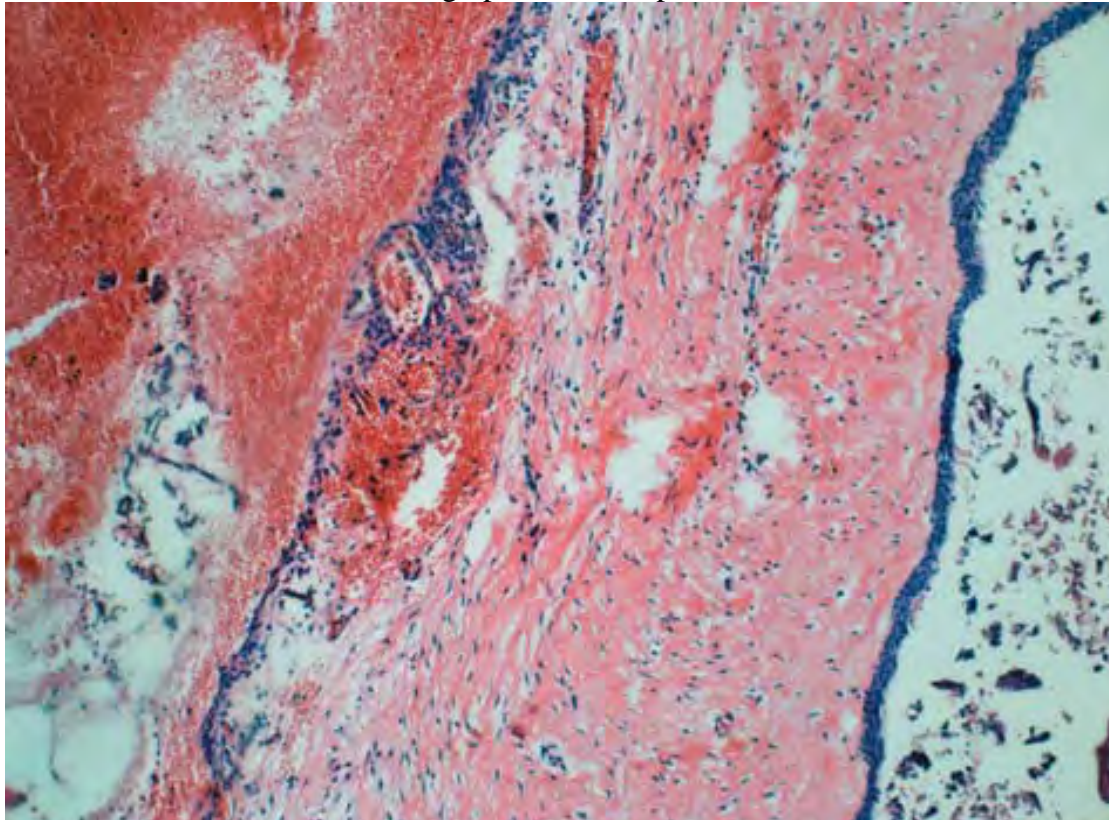
- The involved permanent teeth erupted naturally, without any traction forces
- 2<sup>nd</sup> premolar assumed an impacted position over the 1<sup>st</sup> premolar probably because of dental arch deficiency.
- 2<sup>nd</sup> premolar was removed under local anesthesia.

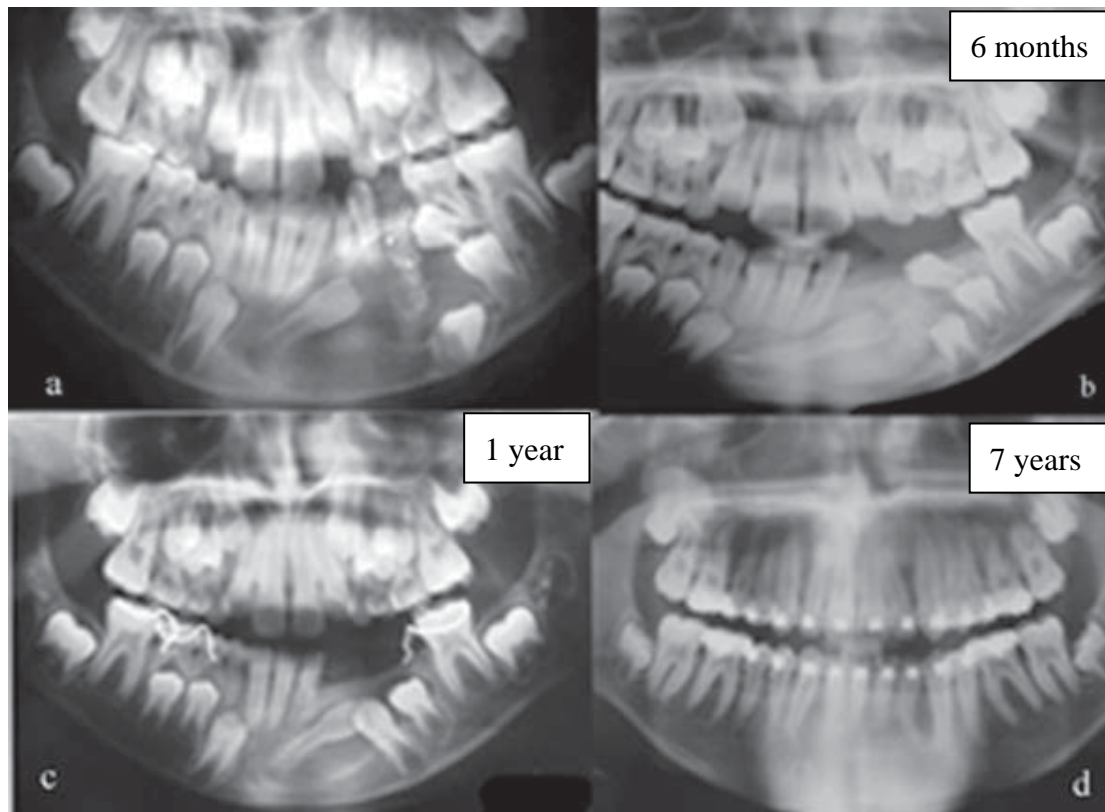
**1-year follow-up**

- Lesion completely withdrawn, but lateral incisor still remained displaced.
- Space-maintainer was installed, and referred to orthodontic treatment.

**7-year follow-up**

- No lesion recurrence in radiographic follow-up.



**[Case 2]****Patient**

- 10 y/o, female

**Chief complaint**

- Cystic-like lesion at right mandible on panoramic radiograph for ortho. tx.
- Painless

**Oral examination**

- Slight swelling of alveolar mucosa related to primary molar and canine.

**Radiographic findings**

- A segmented radiolucent area in the right mandible body presenting a sclerotic border. Inclusion and dislocation of the permanent canine, 1<sup>st</sup> and 2<sup>nd</sup> premolars were associated.

**Further examination**

- Local bone aspiration, incisional biopsy

**Microscopic findings**

- Capsule fragment presented a stratified epithelial lining with prominent columnar basal cell layer and parakeratinized daughter microcysts were scattered in the connective tissue wall

**Histological diagnosis**

- Keratocystic odontogenic tumor

**Treatment**

- In attempting to preserve permanent teeth, decompression procedure, extracting the primary molars and insertion of iodoform gauze.
- Medication gauze was changed and daily care instruction as [Case 1]
- Radiographic follow-up was performed periodically.

Follow-up results

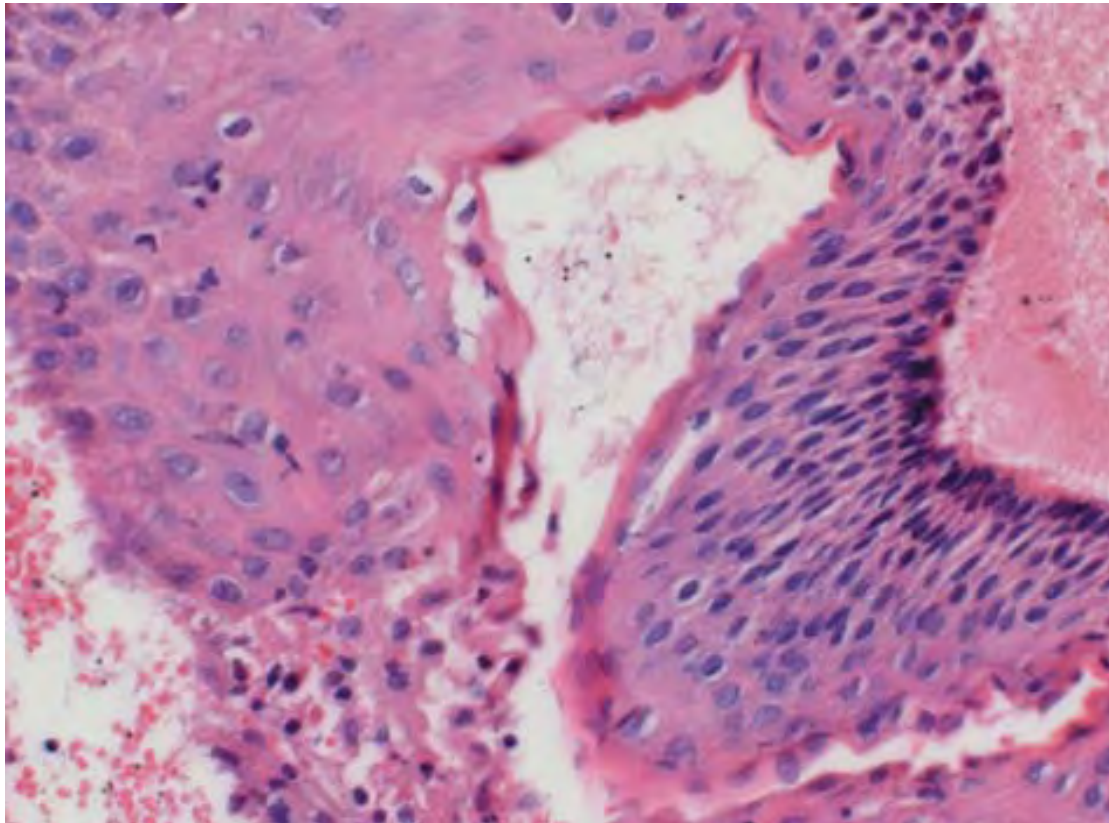
- The permanent teeth went to natural eruption.

2-year follow-up

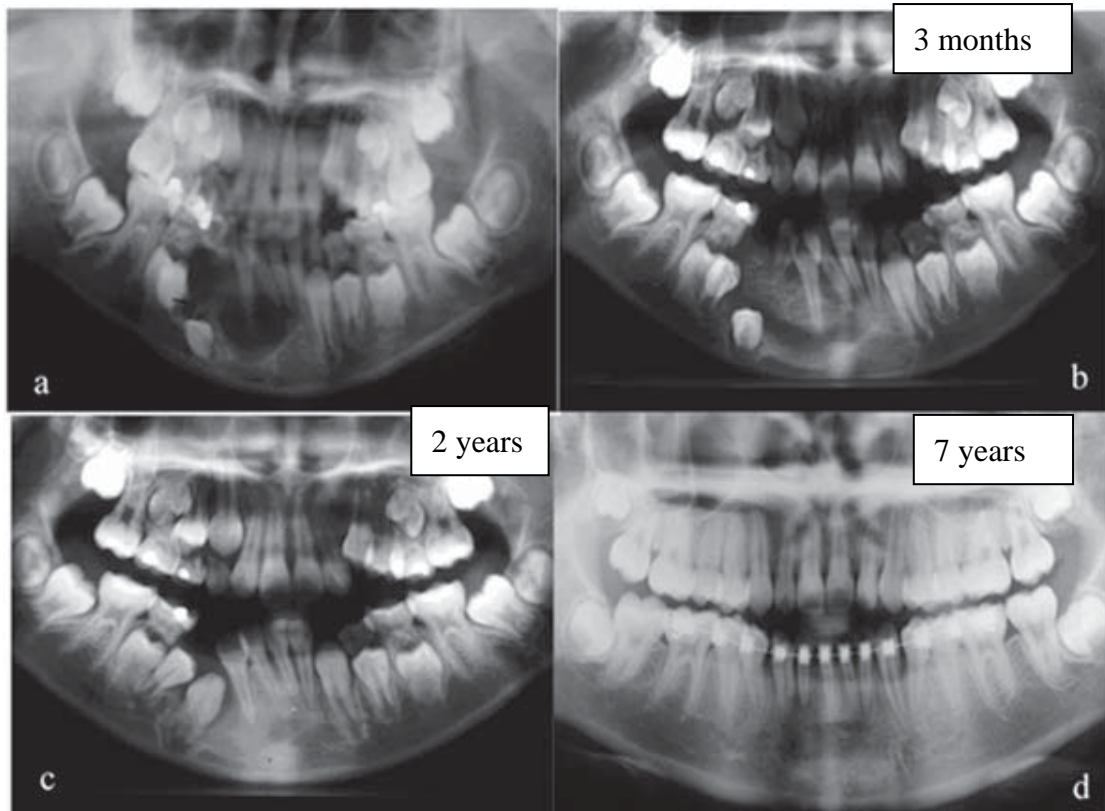
- Lesion healed.
- Referred to orthodontic treatment.

7-year follow-up

- No lesion recurrence in radiographic follow-up.







#### IV. DISCUSSION

##### Dentigerous cyst & Keratocystic odontogenic tumor

##### Histogenesis

- Dentigerous cyst
  - Unclear.
  - Defined as cysts of development of the dental follicle.
  - Authors related them to traumatic pathology or inflammatory processes in primary teeth.
- KCOT
  - Formerly OKC and classified as a neoplasm by WHO in 2005
  - Benign odontogenic tumor derived from the dental lamina
  - One of the major diagnostic criteria of nevoid basal cell carcinoma syndrome (NBCCS)
  - that requires special surgical consideration because of its known aggressive behavior and high tendency to recur. Most surgeons support complete removal with extension margins or careful curettage of the surrounding tissues

##### Recurrence rates

- Influenced by a variety of factors, including the length of the follow-up period, treatment modality, lesion size, histopathological presence of daughter cysts, and the number of cases investigated
- KCOT
  - From 0% to 62%
  - The majority occur within the first 5 years after treatment.
  - Orthokeratinized OKCs is lower than the parakeratinized OKCs
- Cases in this report
  - Case 2 was parakeratinized type and exhibited daughter cysts ,but did not

recur after 7 years of follow-up.

**Treatments**

- Dentigerous cyst
  - Marsupialization or decompressions
    - ✓ Preserve the cyst-associated teeth
    - ✓ Promote their eruption
- KCOT
  - Removal of the cyst including the associated tooth and surrounding bone
    - ✓ Aggressive behavior and high tendency to recur.
  - Decompression and secondary enucleation
    - ✓ Significant reduction confirmed through radiographic imaging,
    - ✓ Secondary cystectomy to prevent recurrence
    - ✓ Probably rather less aggressive in growth characteristics
- Cases in this report
  - Conservative therapy
    - ✓ Age of the patients(first decade)
    - ✓ Development of tooth roots
    - ✓ Pressure relief allowing reduction of the intraosseous lesion and apposition of new bone to the cystic walls
  - Decompression procedure here was done without the supplementary enucleation neither or application of Carnoy’s solution

**After treatments**

- Eruption of the associated impacted teeth may assumes an unusual position after marsupialization/decompression .
- Cases in this report
  - Present teeth came to eruption spontaneously
  - Orthodontic treatment to assure better alignment of teeth
- Although complete resolution by a conservative approach, long-term follow-up is still mandatory, especially the odontogenic keratocystic tumor.

題號	題目
1	Which of the followings is not the classic characteristic of keratocystic odontogenic tumor (KCOT)? (A) Mandibular tendency ,especially body and ramus area (B) Tend to grow antero-posterior direction (C) Associated to Gorlin syndrome (D) Many recurrences after 5 years of original surgery
答案(D)	出處：Neville, Oral and Maxillofacial Pathology, 3rd Ed P.683
題號	題目
2	Which of the followings is true about follicular cysts? (A) Also named dentigerous cysts (B) Most often involve maxillary 3 <sup>rd</sup> molars (C) Circumferential variety is most common (D) Would't undergo neoplastic transformation
答案(A)	出處：Neville, Oral and Maxillofacial Pathology, 3rd Ed.P679