

初診科 Case Report

A case of ameloblastoma

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報告人：實習H組

| | | |
|------|-----|-----|
| Int. | 詹至翔 | 張閔傑 |
| | 黃齡瑤 | 曾上純 |
| | 洪郁文 | |



Part 1 – basic information



General Data

- Name : 陳新縣
- Sex : male
- Age : 52 y/o
- Native : 台南縣
- Marital status : 已婚
- Occupation : 機械修理
- Attending V.S. : 黃逸岳醫師
- First visit : 96.06.08



Chief Complaint

- **Tooth mobility of tooth 31 32 33 34**



Present Illness

The 52 y/o male suffered from the episode of tooth 31 32 33 34 mobility about a month. He had visited 家禾 LDC for help in the beginning of May in 2007. Then, periapical film was taken and the doctor found the RL cystic lesion over mandibular symphysis area. Therefore, the doctor referred him to our OPD for further examination and treatment.

Past History

● Past Medical History

- Anemia
- Denied any systemic disease
- Denied any drug or food allergy
- Hospitalization(-)

● Past Dental History

- Extraction
- OD
- Prosthesis
- Experience of dental treatment : fair

Personal History

- Risk factors related to malignancy
 - Alcohol : (+), ?瓶/天
 - Betel quid : (-)
 - Cigarette : (-)
- P't likes to eat spicy food.

Family History

- Hereditary disease: Nil
- Family support : good

Intraoral Examination

- mobility of tooth 31 32 33 34
 - Duration : 1+ month
 - Smooth surface
 - Swelling over lingual side
 - Color : normal pink
 - No discharge
 - The adjacent mucosa seemed to be normal.



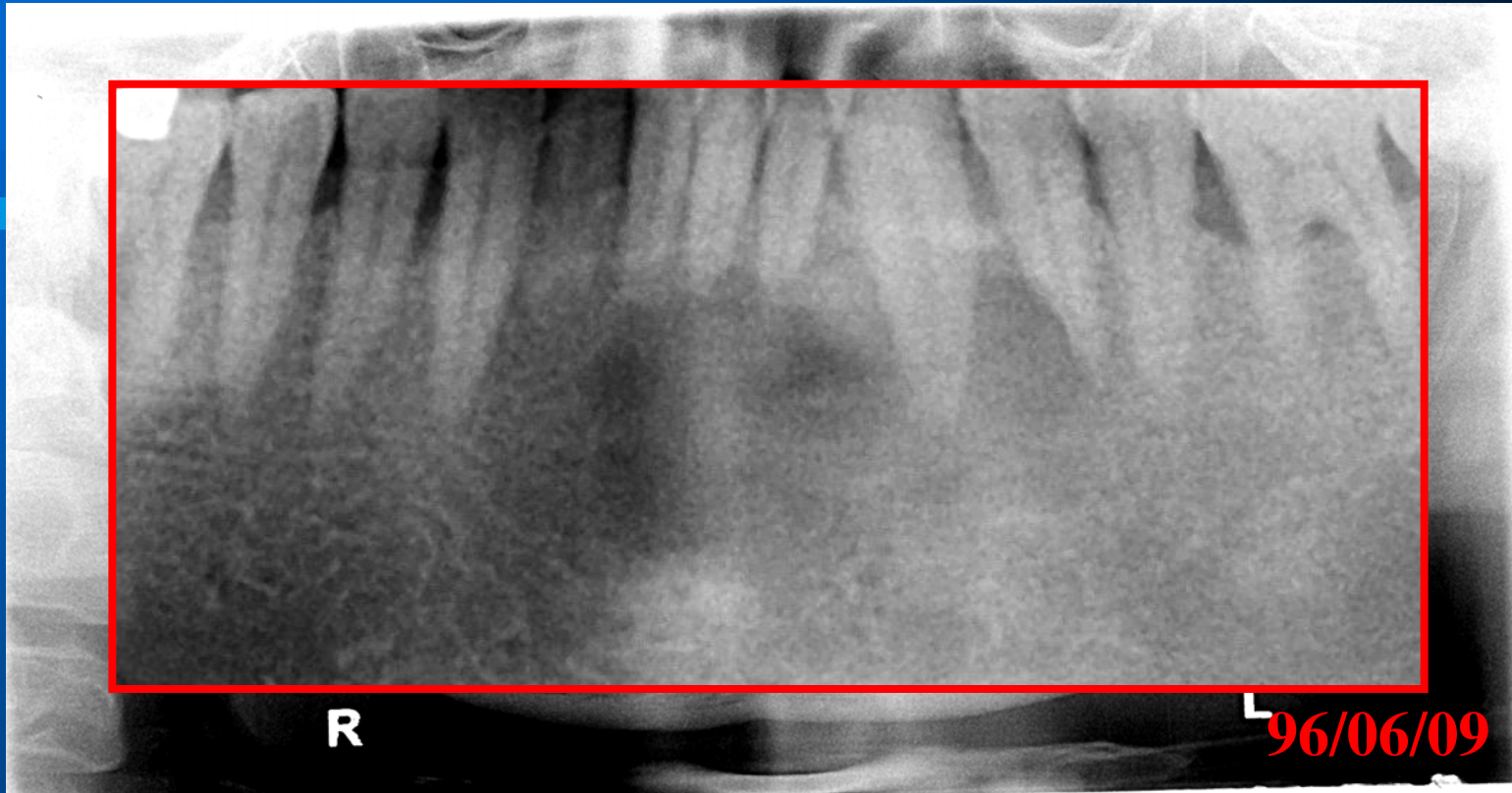
Intraoral Examination (cont.)

- Dental findings :
 - Missing : 16, 18, 28, 38
 - Bridge : 15x17 (metal)
 - Restoration : 46
 - Tooth mobility : 31 32 33 34
grade(?)

Physical Examination

- EPT : $\frac{\quad}{3} \rightarrow (+)$; $\frac{\quad}{1234} \rightarrow (-)$
- Consistency : bony hard
- Fluctuation (-)
- Pain (-)
- percussion pain(-) \rightarrow tooth 31 ~ 37
- Tenderness (-)
- Induration (-)
- Fever or local heat (-)
- Lower lip paresthesia (-)
- Lymphadenopathy (-)

Radiographic Examination (Panoramic film)



A well-defined, scallope-shaped, unilocular radiolucency without corticated margin over mandibular symphysis, extending from the medial side of tooth 34 to the mesial side of tooth 43 and from middle third of tooth 33 root down to the 1/2 mandibular symphysis, measured approximately 4.0 x 2.0 cm in diameter. Lamina dura of involving root disappeared. Root resorption was noted at tooth 33, 34 and the lesion didn't involve in L't mental foramen.



- **Dental findings:**

- Missing : 16, 18, 28, 38
- Bridge : 15x17 (metal)
- Filling : 46
- Root resorption : 33, 34
- Total bone loss : 15
- Generalized periodontitis

- **No other abnormalities were observed.**

Radiographic Examination (Periapical film)

A well-defined, irregular shape, unilocular radiolucency without corticated margin, extending distally to **the mesial side of tooth 35** and **up from the alveolar crest**. Lamina dura of involving root disappeared. Root resorption was noted at tooth 33, 34. **Besides, vertical expansion was seen at the alveolar crest near 33 mesial side.**



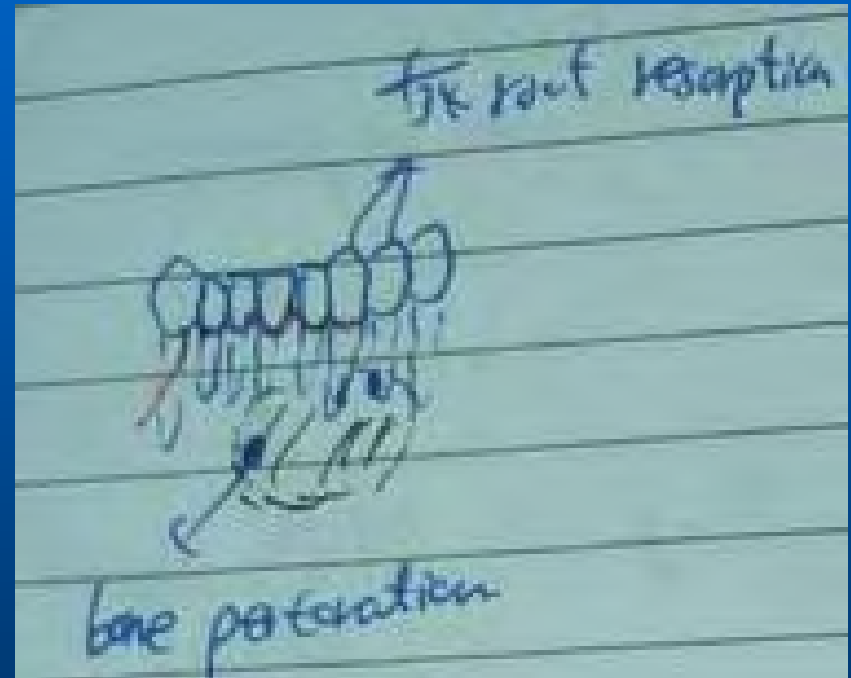
Radiographic Examination (Occlusal film)

**Teeth crowding
over lower ant.
region**



Treatment course (96/06/12)

- **Biopsy :**
bone perforation
was noticed over
apex of tooth 41 、 42
- **Aspiration :**
clear with light
yellowish discharge



Part 2 – Working Diagnosis



Working diagnosis

■ Inflammation? Cyst? Neoplasm?

- Fever or local heat (-)
- Duration : 1+ month
- well-defined RL
- swelling (+)
- pain (-)
- normal pink



rule out inflammation

Cyst or Neoplasm

■ Central ? Peripheral?

- smooth surface
- adjacent mucosa
→ normal

- well-defined RL
- bone expansion
- Root resorption
- bone perforation



Central

■ Cyst ? Neoplasm?

- Fluctuation(-)
- **Aspiration (+)**
- well-defined RL
- Induration (-)
- adjacent mucosa → normal
- Lymphadenopathy (-)
- Duration : 1+ month
- paresthesia (-)
- Smooth surface
- pain(-)
- tenderness(-)

- Lower Tooth mobility
- Bone perforation
- Bone expansion
- Root resorption



Cyst

Or

**Benign tumor
(cystic change)**

■ Cyst (central type)

Odontogenic

nonodontogenic

Scalloped-shape margin
No-associated
unerupted teeth



Radicular cyst

Odontogenic keratocyst

Glandular odontogenic cyst

Dentigerous cyst

Teeth nonvital(EPT-)

Teeth mobility & root
resorption



Aspiration : clear to yellow

~~Simple bone cyst~~

~~Aneurysmal bone cyst~~

Rule out

Cyst

■ Clinical feature

- EPT(-) : 31 ~ 34
- Smooth surface
- Adjacent mucosa → normal
- Swelling(+)
- tooth mobility
- Color : normal pink
- Consistency : bony hard
- Fluctuation (-)
- Duration : 1⁺ month
- Pain (-)
- Percussion pain(-)
- Tenderness (-)
- Induration (-)
- Aspiration (+) → clear yellowish discharge

■ X-ray feature

- Periapical radiolucency
- well-defined RL without corticated margin
- bone expansion
- Lamina dura of involving root disappear
- Root resorption

Radicular cyst

Odontogenic keratocyst

Glandular odontogenic cyst

■ Neoplasm (central type)

Odontogenic

Teeth nonvital(EPT-)
Teeth mobility & root
resorption
Aspiration(+) : clear to
yellow

Ameloblastoma(solid type)

Unicystic ameloblastoma

~~Cemento-ossifying fibroma~~

~~Cemento-ossifying dysplasia~~

nonodontogenic

Teeth nonvital(EPT-)
Teeth mobility & root
resorption
Aspiration : clear to yellow

~~Central giant cell granuloma~~

~~Hemangioma~~

Rule out

Benign tumor

■ Clinical feature

- EPT(-) : 31 ~ 34
- Smooth surface
- Adjacent mucosa → normal
- Swelling(+)
- tooth mobility
- Color : normal pink
- Consistency : bony hard
- Fluctuation (-)
- Duration : 1⁺ month
- Pain (-)
- Percussion (-)
- Tenderness (-)

■ X-ray feature

- Periapical radiolucency
- well-defined RL without corticated margin
- bone expansion
- Lamina dura of involving root disappear
- Root resorption

**Conventional solid ameloblastoma
(cystic change)**

Unicystic ameloblastoma

Cyst

- Radicular cyst
- Odontogenic keratocyst (OKC)
- Glandular odontogenic cyst

Benign tumor

- **Conventional solid ameloblastoma
(cystic change)**
- **Unicystic ameloblastoma**

Part 3 –

Differential Diagnosis



Differential Diagnosis

- Conventional solid ameloblastoma (cystic change)
- Unicystic ameloblastoma
- Radicular cyst
- Odontogenic keratocyst (OKC)
- Glandular odontogenic cyst

Conventional solid ameloblastoma (cystic change)



| | Conventional solid ameloblastoma | Our case |
|---------|-------------------------------------|--|
| Age | 30~70 | 52 |
| Gender | No predilection | Male |
| Site | Md. Molar-ramus | Md. Anterior |
| Symptom | Painless swelling | Painless swelling |
| Margin | Well-defined with corticated margin | Well-defined without corticated margin |

| | Conventional solid ameloblastoma | Our case |
|-----------------|--|-----------------------|
| X-ray feature | Multilocular or Scalloping unilocular | Scalloping unilocular |
| Bony expansion | + | + |
| root resorption | + | + |
| other | Associated with unerupted tooth | - |

Unicystic ameloblastoma



| | Unicystic ameloblastoma | Our case |
|---------|-------------------------------------|--|
| Gender | Male | Male |
| Age | 2nd decade (23) | 52 |
| Site | 90% mand. Post. area | Md. Anterior |
| Symptom | Asymptomatic Painless swelling | Painless swelling |
| Margin | Well-defined with corticated margin | Well-defined without corticated margin |

| | Unicystic ameloblastoma | Our case |
|----------------------------------|--|---|
| X-ray feature | unilocular | Scalloping unilocular |
| Density | radiolucence | radiolucence |
| Bony expansion | + | + |
| root resorption | + | + |
| Effects on surrounding structure | No effect Large lesion – bony expansion | Root resorption Bony expansion and perforation |
| other | Associated with unerupted tooth | - |

Radicular cyst



| | Radicular Cyst | Our case |
|---------|--|---|
| Gender | Male (Slightly) | Male |
| Race | Unspecific | Asian |
| Age | Medium age(30~50 y/o) | 52 |
| Site | apex of nonvital tooth | Mandibular ant. |
| Symptom | Asymptomatic Secondary infection or too large → swelling | Swelling(+) Fluctuation(-) Aspiration(+) Pain(-) Tenderness(-) Smooth surface |

| | Radicular Cyst | Our case |
|---|---|--|
| Margin | well-defined, with corticated margin | well-defined, without corticated margin |
| X-ray feature | Unilocular | Scalloping unilocular |
| Size | Usually $> 2\text{cm}$ | 4.0 x 2.0 cm |
| Density | Radiolucency | Radiolucency |
| Effects on surrounding structure | no effects Or teeth displacement, tooth resorption, bone expansion | Root resorption Bone expansion and perforation |

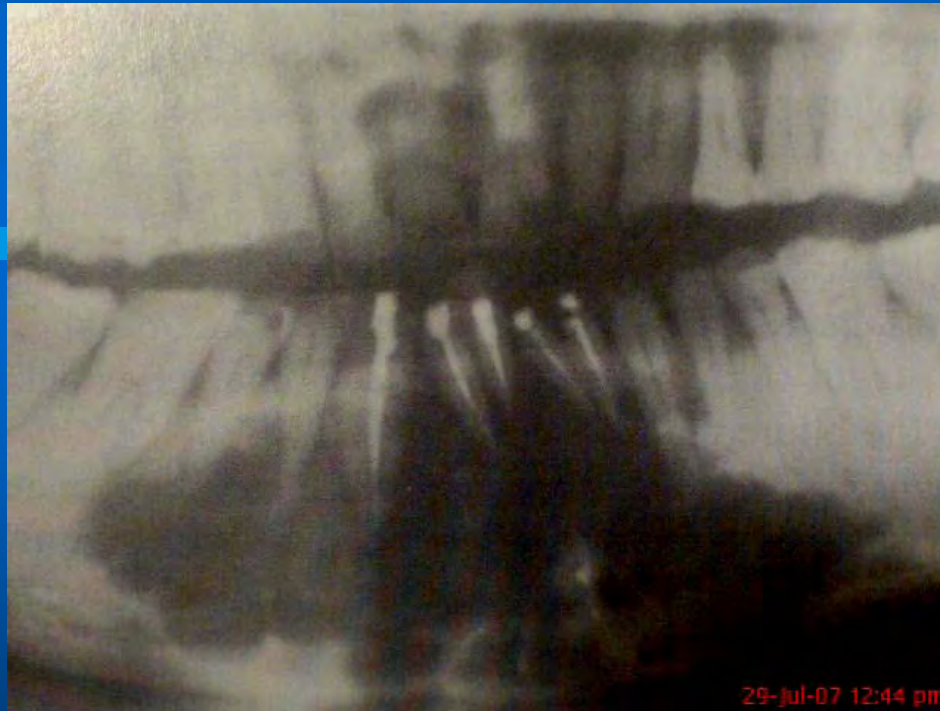
Odontogenic Keratocyst



| | OKC | Our case |
|-------------------|---|--------------------------|
| Age | Wide range (10~40 y/o > 60%) | 52 |
| Gender | Male (Slightly) | Male |
| Site | Posterior mandibular body + ramus | Mandibular ant. |
| Symptom | asymptom or pain, swelling, drainage | Painless swelling |
| Bone expansion | Rare, 通常是A-P方向的 extension | bone expansion |
| X-ray feature | Unilocular / multilocular | Scalloping Unilocular |

| | OKC | Our case |
|-----------------|-------------------------------------|--|
| Density | Radiolucence | Radiolucence |
| Margin | Well-defined with corticated margin | Well-defined without corticated margin |
| Root resorption | Rare | + |

Glandular odontogenic cyst



| | GOC | Our case |
|---------|--|------------------------|
| Ages | Middle age adult (Avg:49y/o) | 52 |
| Gender | unknown | Male |
| Site | Strong predilection: Jaw anterior region (many cross midline) | Mandibular ant. |
| Symptom | Small lesion may asymptomatic Large -may pain and parethesia(+) | Pain(-) swelling(+) |

| | GOC | Our case |
|----------------|---|--------------------------------|
| Bone expansion | Large(+) | bony expansion and perforation |
| X-ray feature | Unilocular / multilocular more commonly | Scalloping Unilocular |

Clinical impression

- Ameloblastoma, intraoral, mandibular symphysis area, apex of tooth 42 ~ 35



~Thanks for your attention

