# 口腔病理及影像診斷科
# Case Report

報告組別：Intern Group A
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# General Data

- Name: XXX
- Sex: Female
- Age: 25 y/o
- Native: 台灣
- Marital status: 未婚
- Attending V.S.: XXX醫師
- First visit: XXX.XX.XX

# Chief Complaint

- Referred from LDC because of a radiolucent image over left mandible was found during routine oral examination

# Present Illness

- 03/30/2005 (in XXXXH.)
  - Ameloblastoma s/p cystic enucleation under GA
  - Left inferior alveolar nerve had been sacrificed
- 04/2005 to 10/2010 (in XXXXH.)
  - Kept f/u
  - A RL image over the same site appeared again during this time,
    but the doctor decided to keep f/u
  - Moved to Kaohsiung on 10/2010, and then lost f/u
- 06/05/2012
  - Referred from LDC, taking panorex and CT scan
  - CT report: suspected recurrent ameloblastoma
  - Arranged OP on 09/17/2012

# Past History

- Past Medical History
  - Hospitalization: (+), ameloblastoma over left ramus s/p cystic enucleation + complicated odontectomy of tooth 38
  - Surgery under GA: (+), as above
  - Systemic diseases: denied
  - Drug or food allergy: denied
- Past Dental History
  - General routine dental treatment
- Attitude to dental treatment:  Cooperative

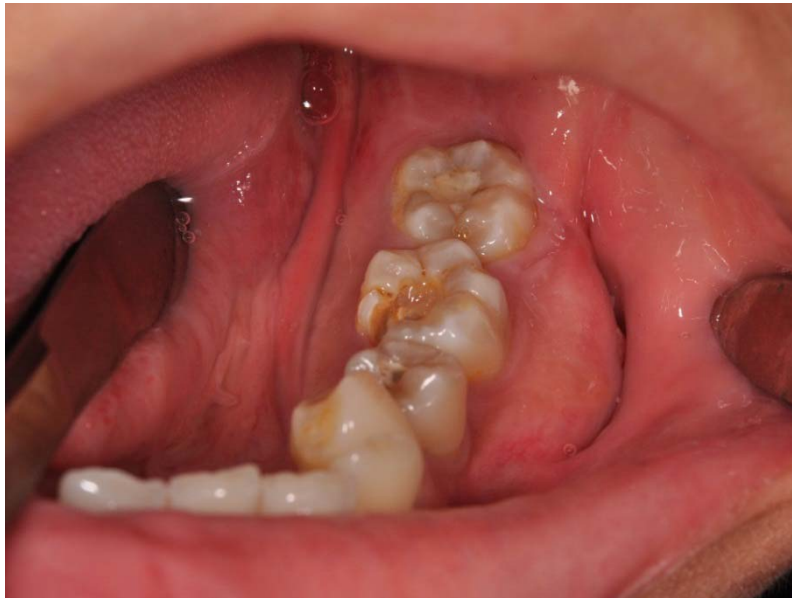
# Personal History

- Risk factors related to malignancy
  - Alcohol: (-)
  - Betel quid: (-)
  - Cigarette: (-)
- Other specific oral habits : Denied
- Bite irritation : Denied

# Dental examination

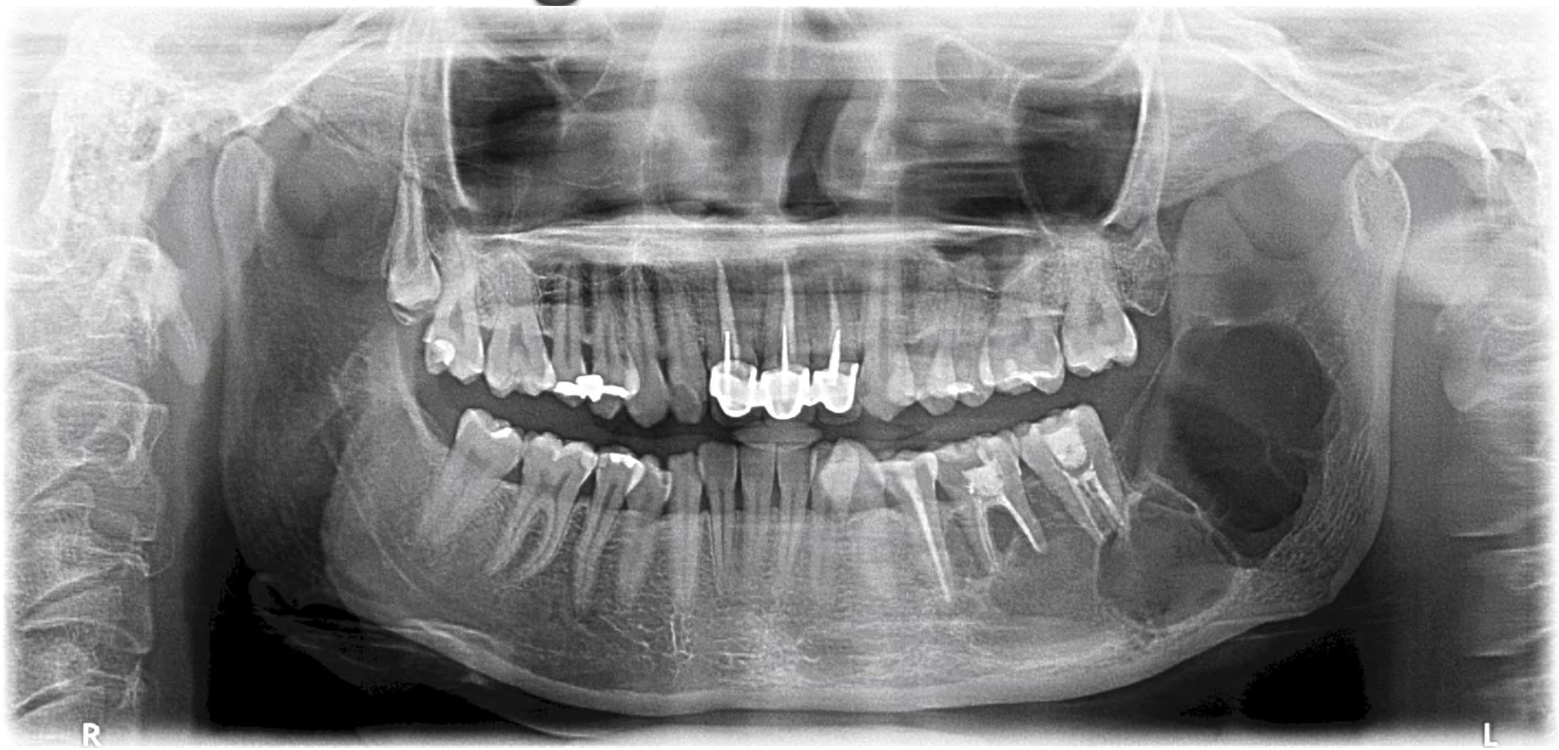
- Missing: Tooth 28 35 38 48
- C&B: Tooth 11 21 22
- Restorations: Tooth 14 15 17 25 26 45 47
- Caries: Tooth 36 37
- MMO: 40mm (Tooth 11 to 41)

# Intraoral findings



- Site: L't mandible
- Size: 3.0 x 3.0 cm
- Shape: Dome
- Color: Normal-mucosa
- Consistency: Bony hard
- Pain: (-)
- Tenderness: (-)
- Lip numbness: (+), left, due to previous surgery
- Tooth mobility: tooth 35 (-), 36 (-), 37 (-)
- Bone expansion: (+), buccolingual direction over left mandible

# Panorex taking

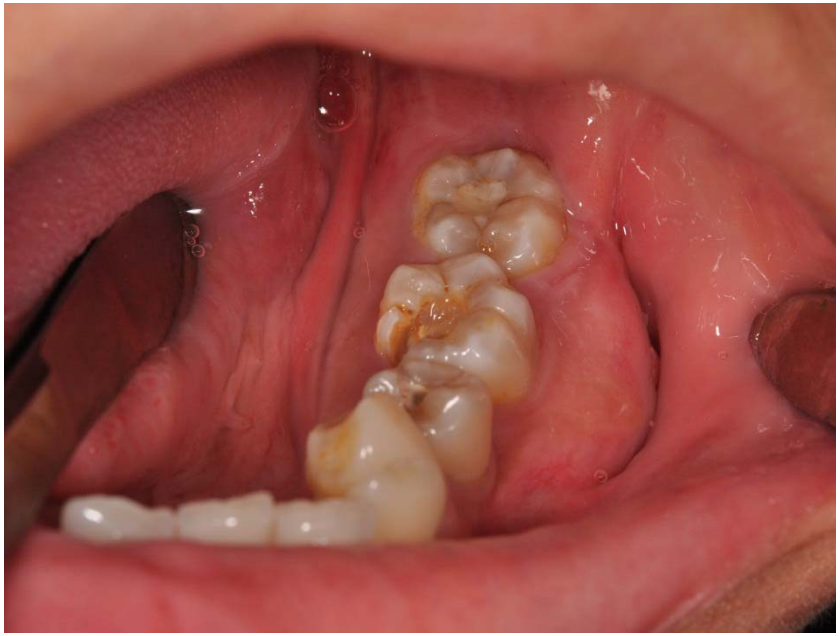



- There is a well-defined multilocular round-shaped radiolucency with sclerotic margin over left mandible, extending from root apex of 35 to inferior border of cortex of left ascending ramus and from 0.5cm inferior to sigmoid notch down to the inferior border of cortex of left mandible, measuring 7.0x5.5cm in size. Bone expansion over left retromolar area is noted. Left alveolar canal was not visible due to previous surgery. Left inferior cortical margin still intact. Non-vital tooth 35, 36, 37 is noted in contact with the lesion without root resorption.

# Differential Diagnosis

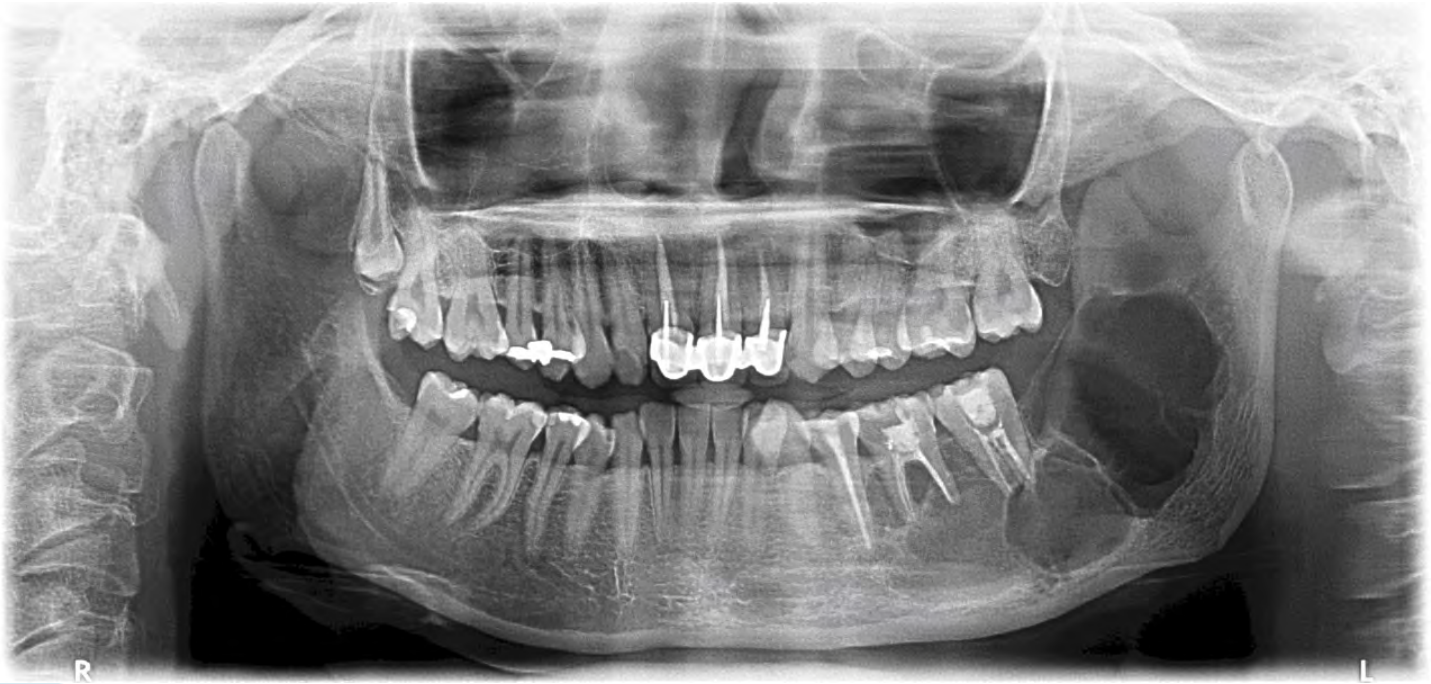
# Peripheral or intrabony ?

- Left lower posterior area
- 3.0 X 3.0 cm, dome shape, bony hard consistency, normal mucosa color
- Tenderness (-)
- Pain(-)
- Lip numbness (+)
- Bone expansion (+)



# Peripheral or intrabony ?

- Multilocular radiolucency with bony destruction
  → Intrabony lesion



# Peripheral or Intrabony?

| | Our case | Peripheral | <Intrabony> |
|---|---|---|---|
| Mucosal lesion | - | + | - |
| Induration | - | + | - |
| Bony expansion | + | - | +- |
| Cortical bone destruction | + | - | +- |

→ Intrabony

# Inflammation,cyst,neoplasm?

| | Our case | Inflammation |
|---|---|---|
| Redness | - | + |
| **Swelling** | + | + |
| Local heat | Unknown | + |
| **Pain** | - | + |

Due to panorex finding : large multilocular RL destruction lesion →cyst or neoplasm

# cyst,neoplasm?

| | Our case | Cyst |
|---|---|---|
| **Fluctuation** | - | +- |
| **Well + defined border** | + | + |
| **Bone expansion** | + | +- |

| | Our case | Inflammation cyst | Non-inflammation cyst |
|---|---|---|---|
| Pain, tenderness | - | + | - |
| Local heat | Unknown | + | - |
| Color | Pink | reddish | pink |
| **Progression** | slow | fast | slow |
| **Sclerotic margin** | + | - | + |

# cyst,neoplasm?

| | Our case | Benign | Malignance |
|---|---|---|---|
| **Border** | Well-defined | Well-defined | Ill-defined |
| **Margin** | Smooth | Smooth | Irregular |
| **Sclerotic margin** | + | + | - |
| Destruction of cortical margin | + | -+ | + |
| **progressive** | Slow | Slow | Fast |
| **Swelling with intact epithelium** | + | + | - |
| Pain | - | - | + |
| **Induration** | - | - | + |

**→Non-Inflammation cyst or Benign tumor**

# Working Diagnosis

(1) Ameloblastoma
(2) Keratocystic odontogenic tumor
(3) Odontogenic myxoma
(4) Central giant cell granuloma

# Ameloblastoma

| | Our case | Ameloblastoma |
|---|---|---|
| Gender | Female | Equal |
| Age | 25 | 30~70 |
| Site | Mandible (molar→ascending ramus) | Mandible (molar→ascending ramus) |
| Paresthesia | - | uncommon |
| Awelling | + | + |
| Drainage | - | + |
| Shape | Well-defined, smooth, soap bubble multilocular, corticated margin | Well-defined, smooth, honeycomb multilocular, corticated margin |
| Bony expansion | + | + |
| Teeth displacement /root resorption | + | + |
| Duration | Slow | Slow |

# Keratocystic odontogenic tumor

| | Our case | KCOT(larger) |
|---|---|---|
| Gender | Female | Slight male |
| Age | 25 | 10~40 |
| Site | Mandible (molar→ascending ramus) | Mandible (posterior body and ascending ramus) |
| Paresthesia | - | pain |
| Swelling | + | + |
| Drainage | - | + |
| Shape | Well-defined, smooth, soap bubble multilocular, corticated margin | Well-defined, smooth, multilocular, corticated margin |
| Bony expansion | + | - |
| Teeth displacement /root resorption | + | + |
| Duration | Slow | Slow |

# Odontogenic myxoma

| | Our case | Odontogenic myxoma |
|---|---|---|
| Gender | Female | Slight female |
| Age | 25 | 10~50 (mean25~30) |
| Site | Mandible (molar→ascending ramus) | Max.:Mand.=3:4 or 3:7 (tooth-bearing areas) |
| Paresthesia | - | - |
| Swelling | + | - |
| Drainage | - | - |
| Shape | Well-defined ,smooth, soap bubble multilocular, corticated margin | Often well-defined, unilocular or multilocular, may with corticated margin |
| Bony expansion | + | + |
| Teeth displacement /root resorption | + | + |
| Duration | Slow | Slow |

# Central giant cell granuloma

| | Our case | Nonaggresive (most) | Aggressive |
|---|---|---|---|
| Gender | Female | Female | |
| Age | 25 | <30 | |
| Site | Mandible (molar→ascending ramus) | Mandible (anterior region) frequently cross the midline | |
| Paresthesia | - | - | Pain |
| Swelling | + | - | + |
| Drainage | - | - | - |
| Shape | Well-defined, smooth, soap bubble multilocular, corticated margin | Well-defined, unilocular or multilocular, noncorticated margin | |
| Bony expansion | + | - | + |
| Teeth displacement/root resorption | + | - | + |
| Duration | Slow | Slow | Rapid |

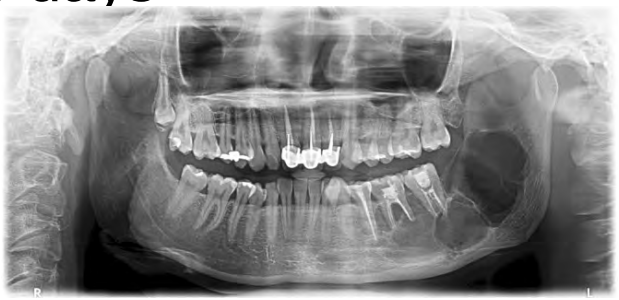
# Clinical Impression

- Recurrent ameloblastoma over left mandible and ramus

# Treatment course

# Treatment course

- 2005~2010
  - ✓Received treatment in XXXXH.
- 101/06/05
  - ✓Discomfort over 36 37 region for 4-5 days
    - ➢Clinical examination
    - ➢Panorex taking



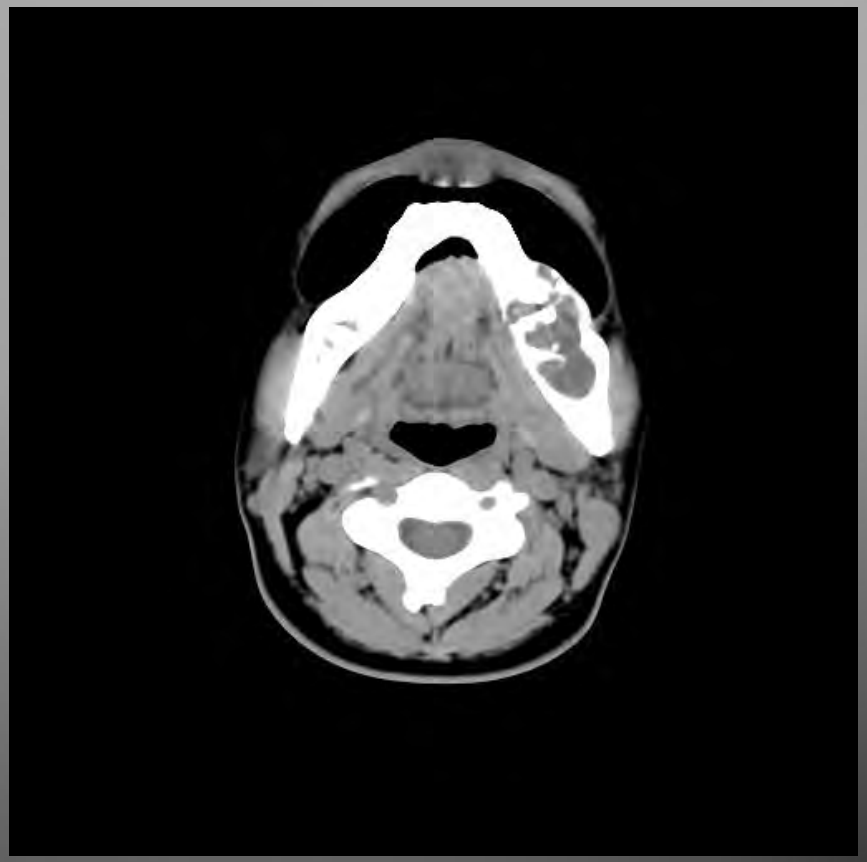
- 101/06/29
  - ✓Ask for treatment of left mandible lesion
    - ➢Arrange for CT scan
    - ➢Check CBC, WBC, Urea N, Creatinine

# Treatment course

- 101/07/20
  - ✓Ask for CT report
  - ✓Left cheek mild swelling
- 101/09/07
  - ✓Treatment plan of left mandible ameloblastoma was made sure
  - ✓Panorex taking
- 101/09/11
  - ✓Treatment plan of left mandible ameloblastoma and GA routine was made sure

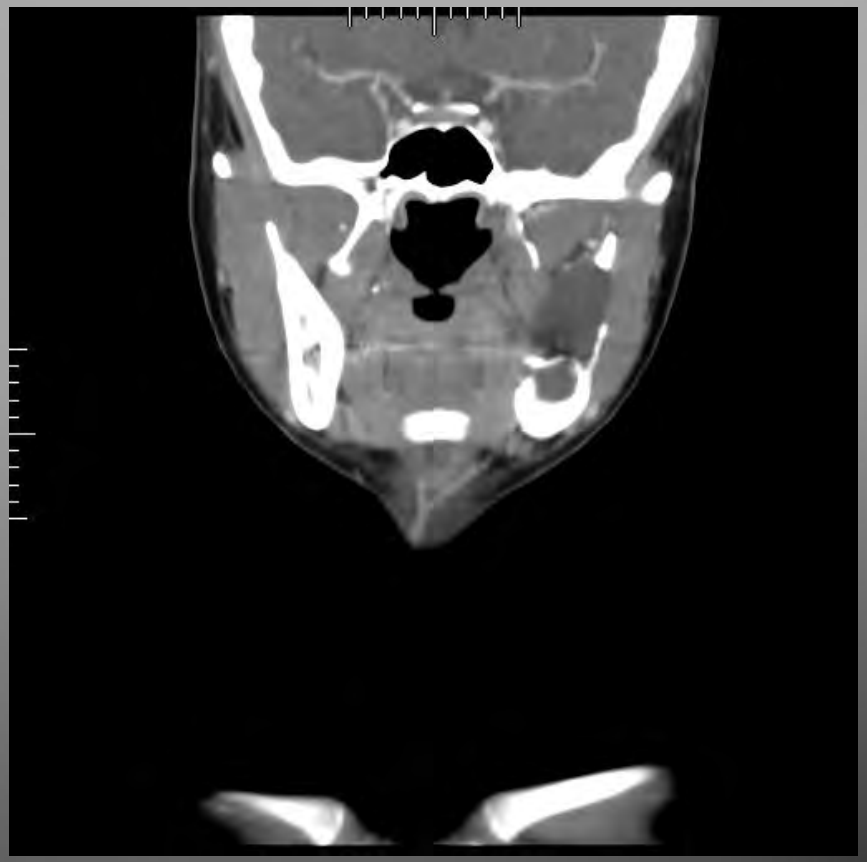
# Image finding – CT (Axial view)

- A multilocular cystic lesion (7.0x5.5x3.0 cm) with bony expansion at left mandibular body.
- DDx: ameloblastoma, keratocystic odontogenic tumor

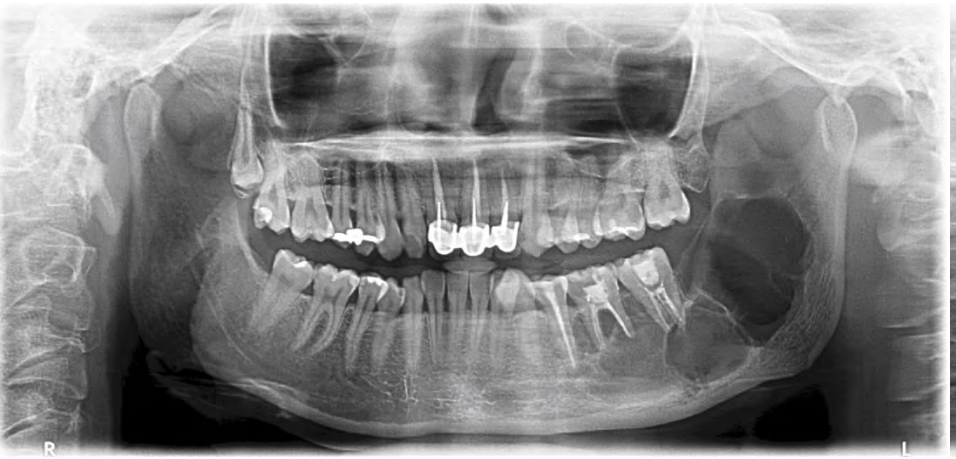


# Image finding – CT (Coronal view)

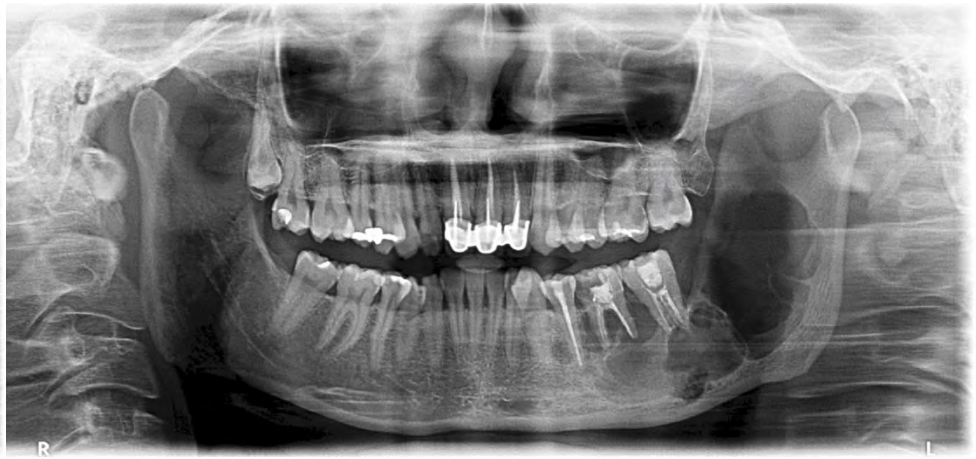
- A multilocular cystic lesion (7.0x5.5x3.0cm) with cortical breakthrough at left mandibular ramus.
- DDx: ameloblastoma, keratocystic odontogenic tumor.
- Recommend clinical correlation.



# Panorex taking



101/06/05



101/09/07

Enlargement of the lesion(8.0x6.0cm) and more bony destruction could be seen on X-ray. Tooth 33 and 34 are involved in the lesion, without root resorption. The lesion expanded nearer to sigmoid notch and inferior border of cortex of left ascending ramus.

# GA routine

- EKG
- CBC
- Urine routine examination
- Glucose
- Blood test: GOT, GPT, UN, CRTN, Na, K, Cl, GGT, Prothrombin time, Partial thromboplastin time
- Chest PA
- B型肝炎E抗原檢查-酵素免疫
- B型肝炎表面抗原檢查-酵素免疫
- C型肝炎病毒抗體

# Treatment course

- 101/09/15
  - ✓Admission
  - ✓OP on 101/09/17
- 101/09/16
  - ✓Pre-operation：
    1. Consult anesthesia department and ENT department
    2. Full mouth scaling
    3. Require patient NPO since midnight the day before surgery
  - ✓Reconstruction plate fabrication

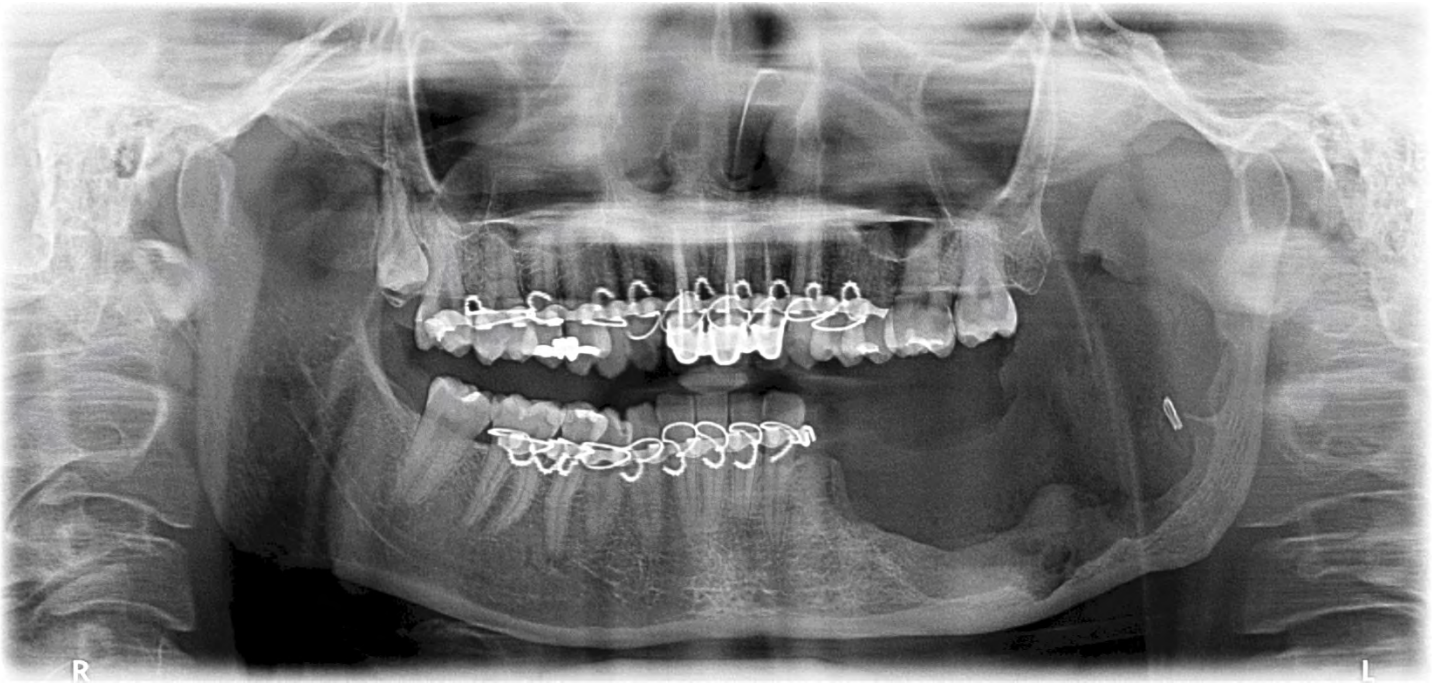
# Treatment course

- 101/09/17 (The day of operation)
  - ✓General condition：fair
  - ✓Operation：
    1. Marginal Resection
    2. Cystic enucleation
    3. Curettage
    4. IMF

# Treatment course

- 101/09/18
  - ✓Throat pain after operation
  - ✓Facial swelling over left cheek
  - ✓Post-op panorex taking
  - ✓Check lab data (higher WBC CRP, lower RBC Hgb Hct)
  - ✓Check wound condition
  - ✓Removal of NG tube
  - ✓Oral irrigation for oral hygiene control

# Panorex taking




101/09/18

Lesion removed and extraction of tooth 33, 34, 35, 36, 37. Cortex of left mandible body and ramus remain intact, and the lesion near inferior border of left cortex and near sigmoid notch was noted remained. Splinting of teeth 16 to 25, and 32 to 46 were noted. A radiopacity in left ascending ramus was noted, suspect as a foreign body

# Treatment course

- 101/9/19-9/23
  - Oral irrigation everyday
  - Keep follow-up for general condition(stable)
  - No special complaint

# Treatment course

- 101/9/23
  - Discharged from hospital
  - Keep f/u in OPD
  - Remove suture s/p 2 weeks in OPD
  - Follow and pending post-OP H-P report

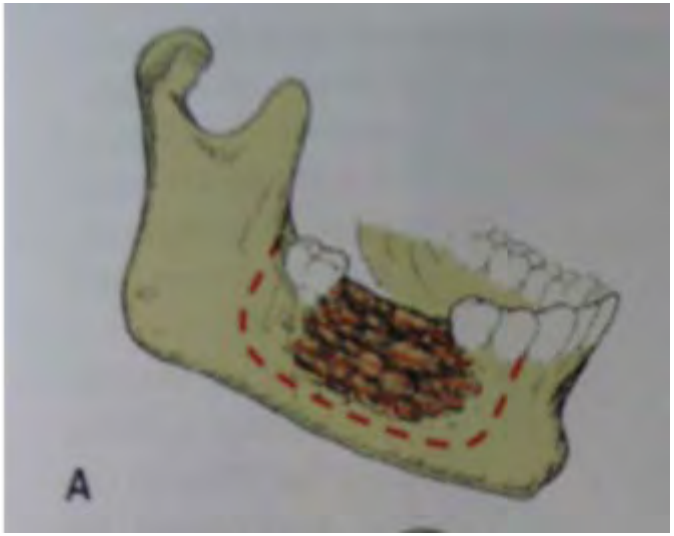
# Discussion

# Enucleation and/or curettage

- Local removal of tumor by instrumentation in direct contact with the lesion
- Used for very benign types of lesion

# Marginal Resection

- Resection: Removal of a tumor by incising through uninvolved tissues around the tumor, thus delivering the tumor without direct contact during instrumentation
- Marginal resection: Resection of a tumor without disruption of the continuity of the bone



# Indication

- Lesion is known to be aggressive
- When total removal by enucleation, curettage, or both would be difficult

# Technique

- Lesion and 1-cm bony margins
- Full thickness mucoperiosteal flap
- Section the bone and remove segment
- If tumor perforated the cortical plate
  - sacrifice soft tissue to eradicate tumor

# 醫學倫理與全人照護

# 醫學倫理與全人照護

- 醫學倫理：一種道德思考、判斷和決策，以倫理學的觀點出發，以期能做出對病人最有利益、最能符合道德倫理規範的醫療決策
- 醫病關係的轉變：醫師中心模式轉變爲病人中心模式 (physician-centered model → patient-centered model)

# 醫學倫理原則

- 由Tom Beauchamp & James Childress在1979提出
- 自主原則(Autonomy)
- 不傷害原則(Non-maleficence)
- 行善原則(Beneficence)
- 公義原則(Justice)

# 臨床案例討論

- 病人已了解自己的病狀 ,治療方法(f/u ,手術) 復發的可能性,併發症(如病人第一次在慈濟開刀時移除掉IAN等)

  →自主原則(Autonomy)

- 在發病的第一次(2005年)選擇開刀， 在2006年病人隨著醫師的建議選擇長期觀察， 在2012年病人選擇做第二次的手術。

  →自主原則(Autonomy)

# 臨床案例討論

- 病人的症狀包含了大部分的left mandible. 第一線治療牙科醫師選擇En bloc resection並使用reconstruction plate來重建. 並且這樣大範圍的切除是必要的.

  →行善原則(Beneficence): 預防傷害：應該預防傷害或惡行, 移除傷害：應該移除傷害或惡行

- 考慮到病人是年紀26歲的女生，到外觀會是影響病人心理的因素, 並可選擇保守性的手術切除範圍 (只移除掉有病狀的bone 留下一小部分來維持外觀)

  →不傷害原則(Non-maleficence)

  →自主原則(Autonomy)

  →行善原則(Beneficence): 利益和福祉

# 臨床案例討論

- 因中途改變手術計畫, 因此沒有用到reconstruction plate
  →公義原則(Justice)

- 並且還有可能會有bone fracture加上復發時再開刀而用到的資源和人力
  →公義原則(Justice)

最後，整個治療過程不只是關心到病人的身體上的病狀，也包含病人生活上的品質與心理上的照顧，符合全人照顧的考量

# 總述

經過執行的Treatment course可檢討到:

- 讓病人了解症狀的嚴重性，並持續的f/u，可能會減少到手術範圍
- 在2012年6月發現症狀時，應緊急治療減少手術範圍，也可以多保留一些牙齒。
- 雖然是爲了滿足自主原則，但應該要讓病人早日接受事實並把整個left mandible移除，並預防與減少recurrence的機率

# Thanks for your attention!