OM Case Report

- 指導醫師：陳玉昆醫師 、陳靜怡醫師
- 報告者：Intern I組

2013.05.28

General Data

- Name : 柳O O
- Sex : male
- Age : 36 y/o
- Native : 台灣
- Marital status : married
- Attending V.S. : O O O 醫師
- First visit : 102.05.17

Chief Complaint

- Swelling over left lower molar region for 2~3 weeks.

Present Illness

- This 36 y/o male has found a swelling mass over his left mandible area in 97.8. And he accepted biopsy in 台大H, the report was ameloblastoma and he came to OS OPD of KMUH in 97.9.16 and asked Dr. O O O for advice. Later he accepted tumor surgery at 台北馬偕 in 97.12. In 102.05, he noticed swelling over tooth 37 buccal region for 2~3 weeks, so he came to KMUH OS dept for clinical examination in 102.05.17.

Intra-oral Examination

- Site: Tooth 35, 36 edentulous ridge and tooth 37 region
- Size: 2 x 2.5 cm
- Color: Normal mucosa coverage
- Surface: Smooth and intact
- Consistency: Firm
- Shape: Dome, sessile
- Bone expansion: (+)
- Local heat/fever: (-)
- Tenderness/Pain: (-)
- Paresthesia: (-)
- Fluctuation (-)
- Fixed

(102.05.17)

RADIOGRAPHIC EXAMINATION

Panorex film

(102.05.17)

There is a well-defined, multilocular, radio-lucency, lesion with corticated margin, lesion over tooth 35, 36 edentulous area, extending from distal side of tooth 34 to tooth 38 apical area, and from upper border to lower border of the mandibular body, measuring approximately 4.6 x 2.82 cm in diameter. Tooth 37 upward displacement and tooth 38 root buccal displacement were noted Inferior alveolar canal upper border missing and corticated bone of lower border of mandibular body thininng. Vertical bony expansion of upper border of the left madibular body between tooth 34 and tooth 37 was noted.

Past Medical History

- Denied any underlying disease
- Denied any food or drug allergies
- Hospitalization: +, tumor excision in 馬偕H at 97.12
- Surgery under GA: +, tumor excision in 馬偕H at 97.12

Past Dental History

- **Operative Dental Treatment**
  - Composite resin restoration on tooth 11, 12,
  - Amalgam restoration 22, 25, 46
  - Tooth extraction of tooth 35, 36

- Attitude to general dental treatment: co-operative

DIFFERENTIAL DIAGNOSIS

Peripheral or Intrabony

- Left posterior mandibular area
- 2 x 2 cm, dome shape, firm consistency, normal mucosa color
- Tenderness (-)
- Pain(-)
- Lip numbness (-)
- Bone expansion(+)

- Multilocular radiolucence with bony destruction → Intrabony lesion

Working Diagnosis

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

	Our case	peripheral	[Intrabony]
Mucosal lesion	-	+	-
Induration	-	+	-
Bony expansion	+	-	+-
Cortical bone destruction	+	-	+-

Intrabony

Inflammation, cyst or neoplasm

	Our case	Inflammation
Redness	-	+
Swelling	+	+
Local heat	-	+
Pain	-	+

Due to panorex finding:

large multilocular RL destruction lesion

→ **cyst or neoplasm**

Cyst or Neoplasm

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

	Our case	Inflammation cyst	[Non-inflammation cyst]
Pain, tenderness	-	+	-
Local heat	-	+	-
Color	Pink	Reddish	Pink
Progression	Slow	Fast	Slow
Sclerotic margin	+	-	+

	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

Ameloblastoma

	Our case	Ameloblastoma
Gender	Male	Equal
Age	36	30~70
Site	Mandible (molar region)	Mandible (molar→ascending ramus)
Paresthesia	-	Uncommon
Swelling	+	+
Drainage	-	+/-
Radiography	Well-defined, smooth, soap bubble multilocular, corticated margin	Well-defined, unilocular or multilocular, corticated margin
Bony expansion	+	+
Teeth displacement /root resorption	+	+
Duration	Slow	Slow

Keratocystic Odontogenic Tumor

	Our case	KCOT (larger)
Gender	Male	Slight male
Age	36	10~40
Site	Mandible (molar region)	Mandible (posterior body and ascending ramus)
Paresthesia	-	pain
Swelling	+	+
Drainage	-	+
Radiography	Well-defined, smooth, soap bubble multilocular, corticated margin	Well-defined, smooth, unilocular or multilocular,corticated margin
Bony expansion	+	-
Teeth displacement /root resorption	+	+
Duration	Slow	Slow

Odontogenic myxoma

	Our case	Odontogenic myxoma
Gender	Male	Slight female
Age	36	10~50 (mean25~30)
Site	Mandible (molar region)	Max.: Mand.=3:4 or 3:7 (tooth-bearing areas)
Paresthesia	-	Rare
Swelling	+	-
Drainage	-	-
Radiography	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	Male	female	
Age	36	<30	
Site	Mandible(molar region)	mandible (anterior region) frequently cross the midline	
Paresthesia	-	-	pain
Swelling	+	-	+
Drainage	-	-	-
Radiography	Well-defined, smooth, soap bubble multilocular, corticated margin	Well-defined, unilocular or multilocular**, non-corticated margin**	
Bony expansion	+	-	+
Teeth displacement /root resorption	+	-	+
Duration	Slow	Slow	Rapid

CLINICAL IMPRESSION

- **Ameloblastoma, left mandibular body**

- After incisional biopsy on 102.05.17, the histopathologic report indicated ameloblastoma, plexiform over left mandible

Discussion

AMELOBLASTOMA

Ameloblastoma

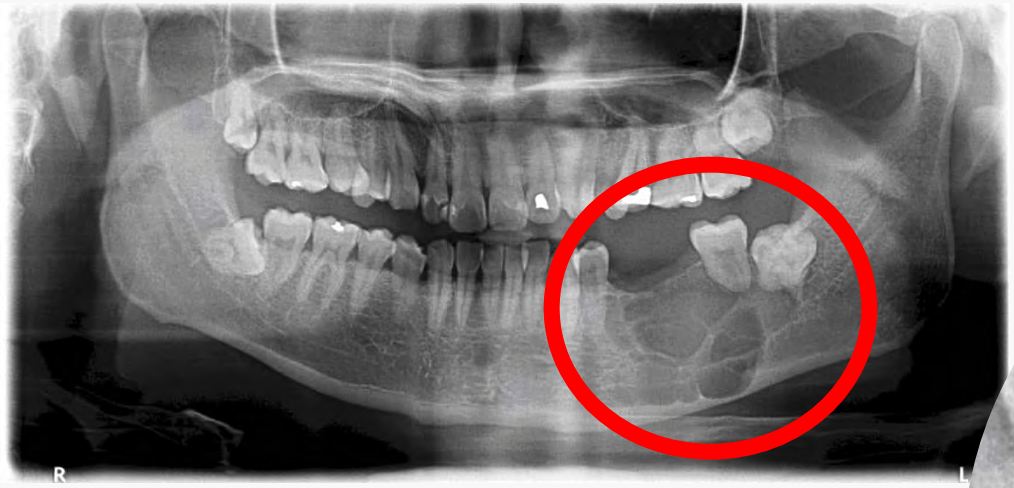
- Introduction
- Clinical and radiographic features
- Histopathologic Features
- Surgical management

Introduction of ameloblastoma

- One kind of epithelial odontogenic tumor
- They may arise from:
  - ✓ rests of dental lamina
  - ✓ developing enamel organ
  - ✓ epithelial lining of an odontogenic cyst
  - ✓ basal cells of the oral mucosa

- Three different clinicoradiographic situations
  - ✓ Conventional solid or multicystic (86%)
  - ✓ Unicystic (13%)
  - ✓ Peripheral (i.e., Extraosseous) (I %)

Our Case: Conventional multicystic



- ✓ soap bubble

Clinical and Radiographic Features of Conventional Ameloblastoma

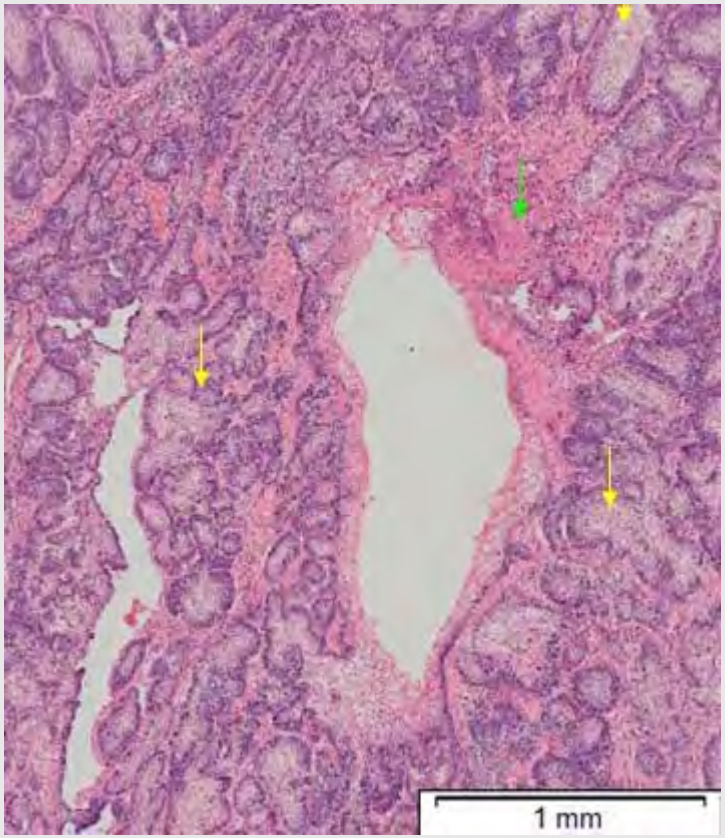
- Equal prevalence in 30 y/o ~ 70 y/o
- No significant gender predilection
- No racial predilection
- About 85% cases occur in the mandible, especially in **the molar-ascending ramus area**
- About I5% cases occur in the posterior maxilla

- Often asymptomatic
- Painless swelling or expansion of the jaw is usual
- Buccal and lingual cortical expansion is frequent
- Resorption of the roots of teeth adjacent to the tumor is common
- Margins of these R-L lesions often show irregular scalloping

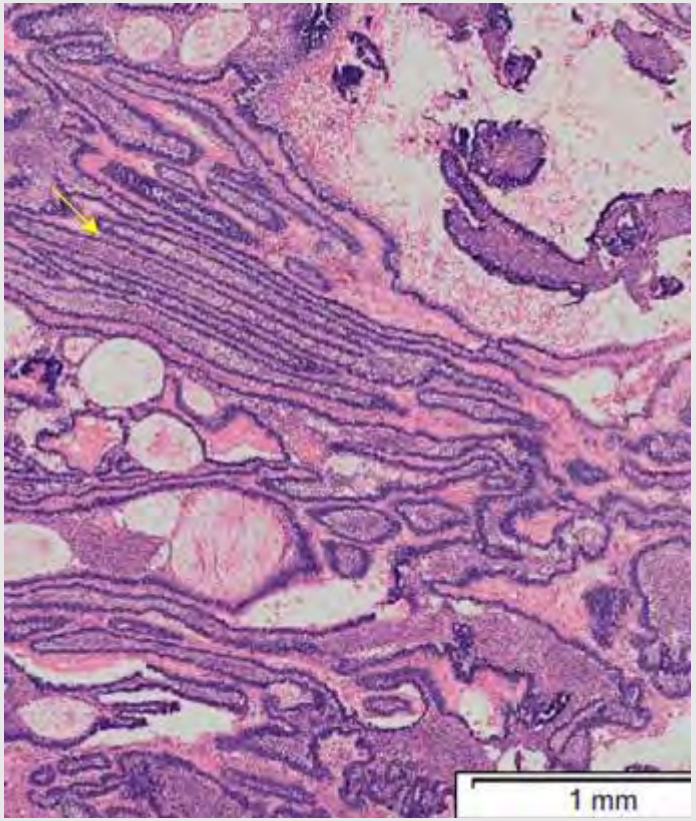
Histopathologic Features of Conventional Ameloblastoma

- Follicular type
- Plexiform type
- Acanthomatous type
- Granular cell type
- Basal cell type
- Desmoplastic type

Follicular type



Plexiform type



圖片來源:高雄醫學大學口腔病理科教學網
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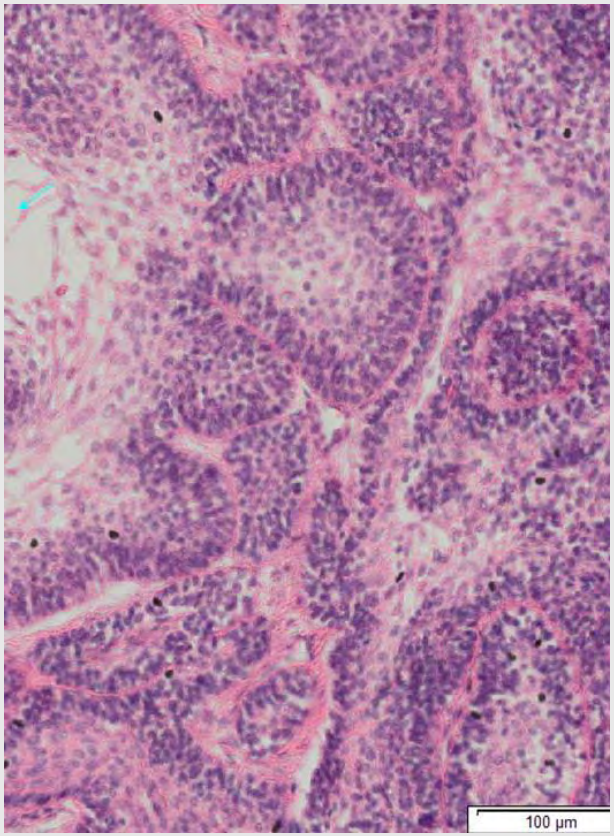
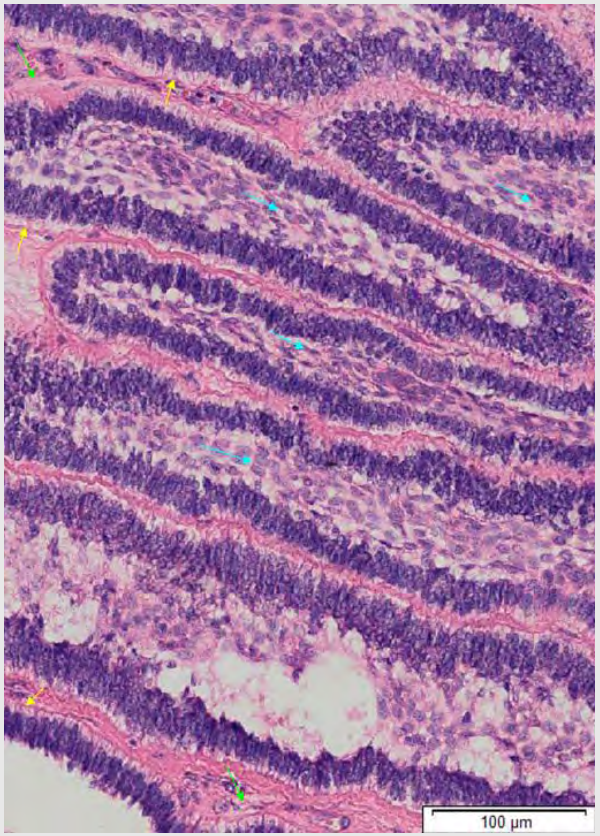
Follicular type



Plexiform type



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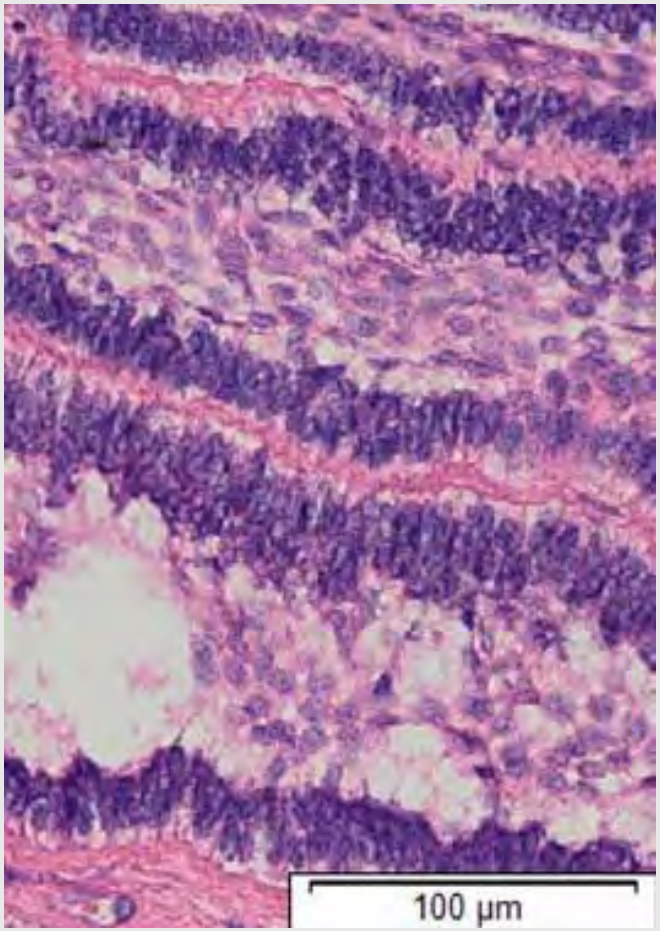
Conventional Ameloblastoma (plexiform type)



- Fibrous stroma
- Stellate reticulum
- Ameloblast-like cell
  - ✓ High-columnar
  - ✓ Reverse polarity
  - ✓ Basement membrane

圖片來源:高雄醫學大學口腔病理科教學網
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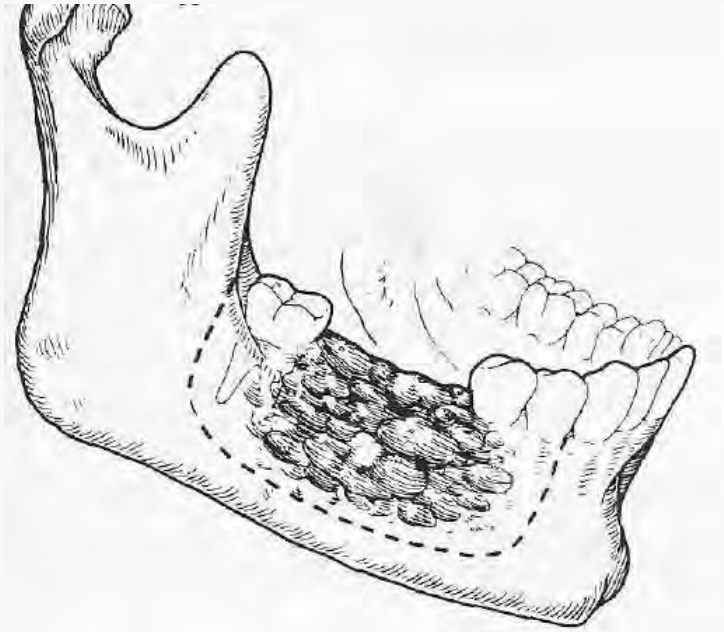
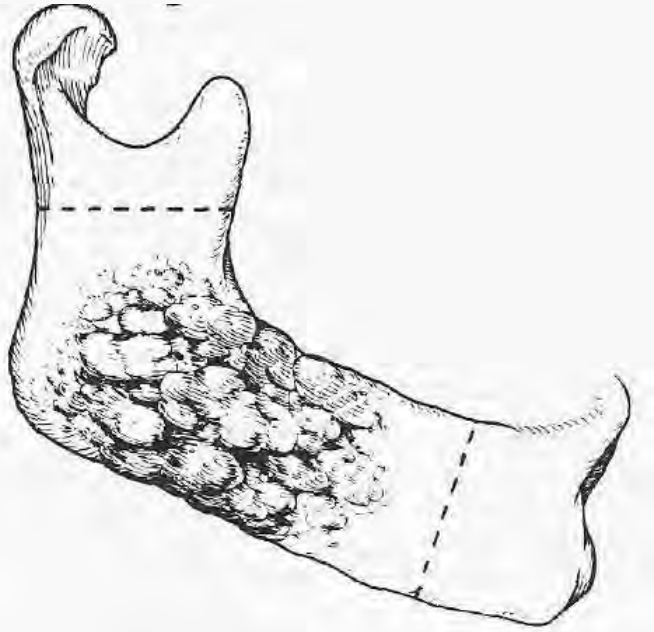
Surgical management of Conventional Ameloblastoma

- Types of surgical operations used for the removal of jaw tumors
  - ✓ Enucleation & Curettage
  - ✓ Marginal (i.e., Segmental) resection
  - ✓ Partial resection
  - ✓ Total resection (maxillectomy, mandibulectomy)
  - ✓ Composite resection



Marginal (i.e., Segmental) resection



Partial resection

Enucleation and/or Curettage	Marginal or Partial Resection	Composite Resection*
Odontogenic tumors		
Odontoma	Ameloblastoma	Malignant ameloblastoma
Ameloblastic fibroma ameloblastic fibroodontoma	Calcifying epithelial odontogenic tumor	Ameloblastic fibrosarcoma Ameloblastic odontosarcoma
Adenomatoid odontogenic tumor	Myxoma	Primary intraosseous carcinoma
Calcifying odontogenic cyst	Ameloblastic odontoma	
Cementoblastoma	Squamous odontogenic tumor	
Central cementifying fibroma		
Fibroosseous lesions		
Central ossifying fibroma	Benign chondroblastoma	Fibrosarcoma
Fibrous dysplasia (if necessary)		Osteosarcoma
Cherubism (if necessary)		Chondrosarcoma
Central giant cell granuloma		Ewing's sarcoma
Aneurysmal bone cyst		
Osteoma		
Osteoid osteoma		
Osteoblastoma		
Other lesions		
Hemangioma	Hemangioma	Lymphomas
Eosinophilic granuloma		Intraosseous salivary gland malignancies
Neurilemmoma		Neurofibrosarcoma
Neurofibroma		Carcinoma that has invaded jaw
Pigmented neuroectodermal tumor		

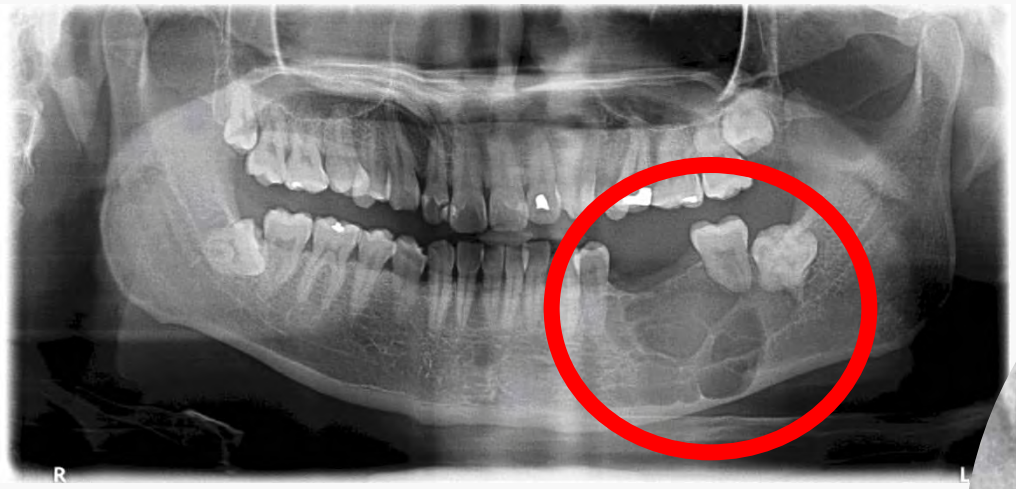
- The conventional ameloblastoma tends to infiltrate the intact cancellous bone before bone resorption becomes radiographically evident.

- Recurrence rates of 50% to 90% have been reported in various studies after curettage.

- Marginal resection is the most widely used treatment, but recurrence rates of up to 15% have been reported.

- Many surgeons advocate that the margin of the resection should be at least 1 cm past the radiographic limits of the tumor.

Our Case



- Recurrence often takes many years to become clinically manifest, so 5-year disease-free periods do not indicate a cure.

醫學倫理與顏面重建

醫學倫理與顏面重建

- 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：醫師中心模式轉變為病人中心模式（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)

自主原則 (Autonomy)

- 原則：一位具理性思考能力的病人，在完全瞭解醫療處置方針的利弊得失下，有權決定自己的行為，包括決定及選擇醫療專業人員和治療方式
- 臨床意義
  1) 病人之自主行為不應遭受他人之操控或干預
  2) 指醫療人員應提供充分且適當之資訊，以促成病人針對診療方式主動作一抉擇

不傷害原則 (Non-maleficence)

- 源自希波克拉底之醫師誓約，即醫師之職責：「最首要的是不傷害」
- 原則：不殺害病人、不能侵害病人權益和福祉以及平衡利害得失，使痛苦減到最低
- 臨床意義
  1) 醫療上是必須的，或是屬於醫療適應症範圍，因所施行的各種檢查或治療而帶來的傷害應符合不傷害原則
  2) 權衡利害原則 → 兩害相權取其輕
  3) 保護病人的生命安全

行善原則 (Beneficence)

- 原則：行善原則包括不傷害原則的反面義務(不應該做的事)和確有助益的正面義務(應該做的事)，包括維護和促進病人的健康、利益和福祉，為基本倫理原則，也是醫護人員的基本義務
- 臨床意義
  1) 勿施傷害：不得故意對他人施予傷害或惡行
  2) 預防傷害：應該預防傷害或惡行
  3) 移除傷害：應該移除傷害或惡行
  4) 維持善行：應該致力於行事或維持善行

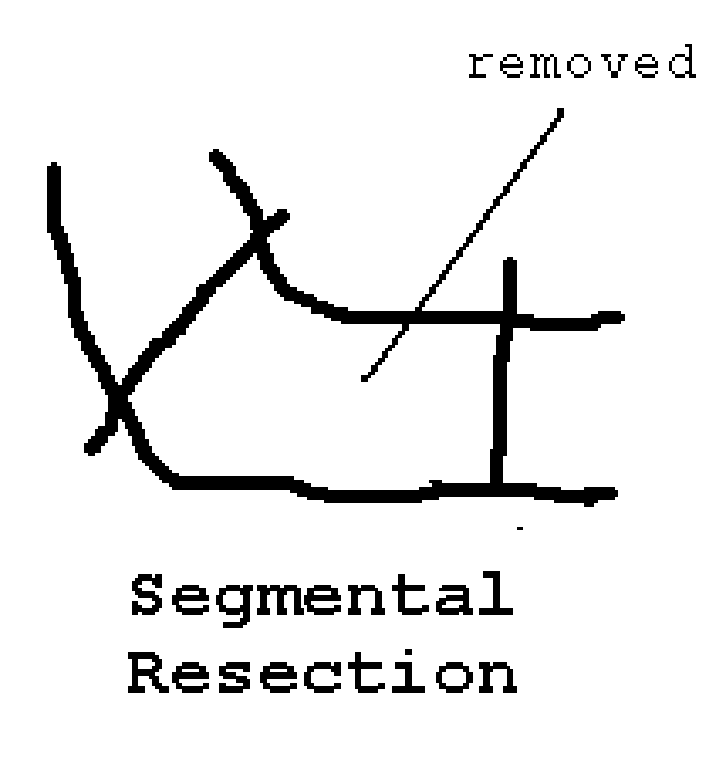
公義原則(Justice)

- 原則：強調資源合理分配、賞罰分明以及合乎正義之事。醫療上公平原則指基於正義與公道，以公平合理的態度來對待病人、病人家屬和受影響的社會大眾
- 臨床意義
  1) 公平地分配不足的資源
  2) 尊重病人的基本權利
  3) 尊重道德允許的法律,法律之前人人平 等
  4) 先來先服務與急重症優先

臨床案例討論

- Segmental resection對病患顏面部的影響及術後顏面之重建
- Ameloblastoma之高復發率
- 我們的Case中，因patient的ameloblastoma範圍很大，假如想將復發率降到最低，需進行segmental resection的手術步驟，對patient的顏面部將造成極大的影響。

Segmental resection



Ameloblastoma之高復發率

- 若切除不夠乾淨，則復發率高達90%
- Ghandhi et al：(41 cases of ameloblastoma)
  - Conservative groups recur—76.2％；radical--0％

此案例違背了哪些原則?

- 行善原則：醫師可能並未叮嚀病患必須持續密切的回診追蹤或提醒病患其嚴重性，導致病患lost follow up約五年後再度復發時已經長得太大而必須進行更大範圍的切除。

總述

- 當我們發現病患得到像Ameloblastoma這種容易復發的疾病時，我們應該要**提醒並告知病患容易復發的特性**，因此需要長期密切追蹤，假如復發，早點發現可以進行叫小範圍的切除，不要等病灶長太大再來治療，這樣會造成的後果等等，讓病患清楚並有警惕心，如此較不容易發生lost follow up的情形。

References

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- Oral and Maxillofacial Pathology, 3rd ed Douglas D. Damm, DDS; Jerry E. Bouquot ; Brad W. Neville, DDS; Carl Allen DDS MSD; Jerry Bouquot, DDS MSD Saunders/Elsevier, 2009

- 高雄醫學大學口腔病理科教學網 http://oralpathol.dlearn.kmu.edu.tw/

Thanks for Your Attention!!