



CASE REPORT

Intern A 組

組員: 余政輝 郭于慶 陳彥蓉 沈怡娟

指導醫師: 口腔病理科全體醫師

102/08/27



General data

- Name 000
- Sex : Female
- Age : 14 y/o
- Native : 高雄市
- Marital status : 未婚
- Attending V.S. : 000 醫師
- First visit :07/23/2013

Chief Complaint

Asking for oral examination and evaluation of the painful swelling over the left mandibular area



08/03/2013



Present Illness

This 14 years old female has suffered from a painful swelling over the left mandible for 2 weeks, so her mother brought her to the Pediatric Dental Department of our institution for examination.



Past Medical History

- Underlying disease: (+)
 1. Systemic Lupus Erythematosus
 2. Neutropenic fever
- Hospitalization: (+)
 1. SLE operation on 8/27/2012
- Surgery under GA: (-)
- Allergy: (-)

Intraoral Examination

- Max Dimension: 2.2 x1.8 cm
- Swelling: Tooth 33-35, buccal aspect (tooth 33, 34: divergence, tooth 33-35: without caries)
- Surface: Smooth, non-ulcerated with pinkish color
- Consistency: Hard
- Pain (+)
- Tenderness (-)
- Induration (-)
- Left submandible, LAP(-)



08/03/2013



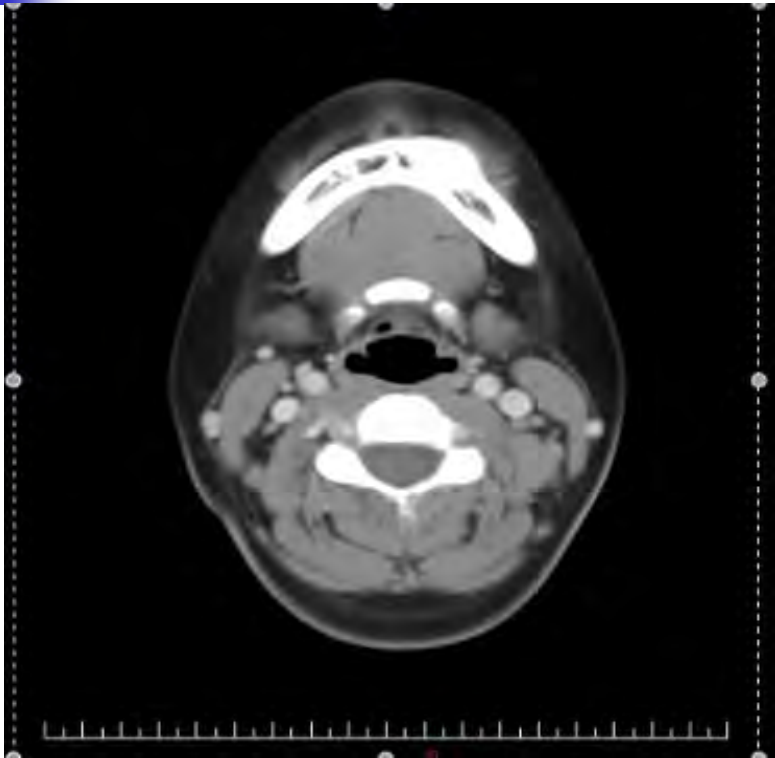
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Image finding – Panorex(102/07/23)

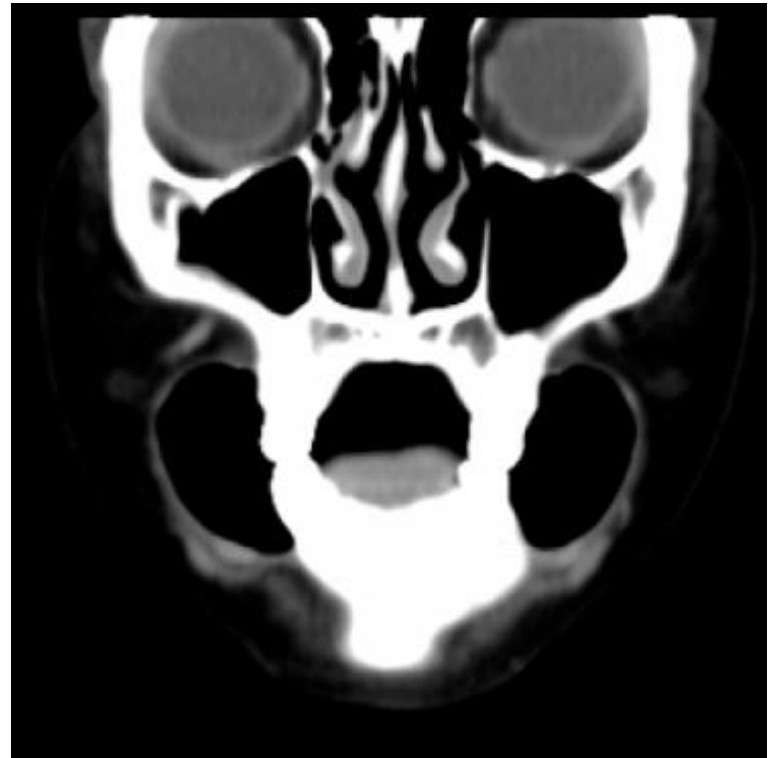


There is a well-defined unilocular ovoid shaped mixed radiolucent-radiopaque lesion, with a corticated margin over the lower left canine-premolar area, extending from CEJ of 34 down to one-third of the mandibular body, and from mesial side of 33 root apex to the 35 root apex, measuring approximately 2.2 x 1.8 cm in maximum diameter. The lesion caused the tooth 33, 34 displacement, tooth 33 distal tilting and tooth 34 mesial tilting. Loss of lamina dura of distal side of tooth 33 root, 34 root, and 35 root apex was noted. In addition, tooth 33, 34 root divergence was noted. There's no significant influence on left mental foramen, and the inferior border of cortical bone was intact.

CT scan (102/08/02)



<Axial view>



<Coronal view>

- There is a well circumscribed hyperdense lesion with expanded the left aspect of mandible. The adjacent bony structures are intact.



Dental Finding

- Impaction: Tooth 18,28,38,48
- Rotation: Tooth 22
- Mesial tilting: Tooth 34
- Distal tilting: Tooth 33
- Secondary caries: Tooth 15,36
- OD filling: Tooth 15(MO),36(DO)



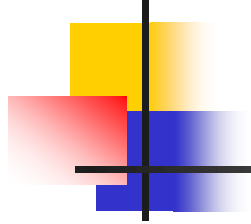
Past Dental History

- General routine dental treatment
- Attitude to dental treatment: Co-operative



Personal History

- Risk factors related to malignancy
 - Alcohol drinking (-)
 - Betel quid chewing (-)
 - Cigarette smoking (-)
- Special oral habits: Denied
- Irritation: Denied



Working Diagnosis

Peripheral or Intrabony?

	Our case	Peripheral	Intrabony
Mucosal lesion	-	+	-
Induration	-	+	-
Bony expansion	+	-	+/-
Cortical bone destruction	-	-	+/-

= > Intrabony

Inflammation, Cyst or Neoplasm?

Inflammation

	Our case	Inflammation
Redness	-	+
Swelling	+	+
Local heat	Unknown	+
Pain	+	+
Multifocal	-	-
Skull involvement	-	-



Cyst or Neoplasm

Cyst or Neoplasm?

Cyst

	Our case	Cyst
Aspiration	unknown	+
Fluctuation	unknown	+/-
Well-defined border	+	+
Bone expansion	+	+/-



Cyst or Neoplasm?

	Our case	Inflammation cyst	Non-Inflammation cyst
Pain, tenderness	Pain(+) tenderness(-)	+	-
Local heat	unknown	+	-
Color	Pink to normal	Reddish	Pink
Progression	Unknown	Fast	Slow
Sclerotic margin	+	-	+

Cyst or Neoplasm?

Neoplasm

	Our case	Benign	Malignant
Border	Well defined	Well defined	Poorly defined
Sclerotic margin	+	+	-
Destruction of cortical margin	-	+/-	+
pain	+	-	+
Induration	-	-	+
Swelling with intact epithelium	+	+	-
Lymphadenopathy	-	-	+/-
Progress	Unknown	Slow	Fast
Metastasis	-	-	+/-



Non-inflammation cyst or Benign tumor



Working Diagnosis

- Cemento-ossifying fibroma
- Focal cemento-osseous dysplasia
- Calcifying epithelial odontogenic tumor
- Calcifying odontogenic cyst
- Fibrous dysplasia



Differential Diagnosis



Cemento-ossifying fibroma

	Our case	Cemento-ossifying fibroma
Gender	Female	Female
Age	14	20~40
Site	Left mandibular canine and premolar region	Mandibular premolar-molar region
Symptom and Sign	Painful swelling	Painless swelling
Jaw expansion	+	+
Teeth displacement	+	+



Cemento-ossifying fibroma

- Radiologic features

	Our case	Cemento-ossifying fibroma
Density	Mixed lesion (RL+RO)	Mixed lesion (RL+RO)
Border	Well-defined with corticated margin	Well-defined with corticated margin R/L rim is uncommon
shape	Unilocular	Unilocular
Root divergence or resorption	+	+

Focal cemento-osseous dysplasia

	Our case	Focal cemento-osseous dysplasia
Gender	Female	Female
Age	14	20~60 (mean=38)
Site	Left mandibular canine and premolar region	Posterior mandible
Symptom and Sign	Painful swelling	Asymptomatic
Size	2.2X1.8 cm	<1.5 cm

Focal cemento-osseous dysplasia

- Radiologic features

	Our case	Focal cemento-osseous dysplasia
Density	Mixed lesion (RL+RO)	Mixed lesion (RL+RO)
Border	Well-defined with corticated margin	Well-defined with a thin peripheral RL rim, but usually slightly irregular
shape	Unilocular	Unilocular



Calcifying epithelial odontogenic tumor (CEOT)

	Our case	CEOT
Gender	Female	Both
Age	14	30~40 (mean=40)
Site	Left mandibular canine and premolar region	Posterior mandible
Symptom and Sign	Painful swelling	Painless, slow-growing swelling
Jaw expansion	+	+

Calcifying epithelial odontogenic tumor (CEOT)

- Radiologic features

	Our case	CEOT
Density	Mixed lesion (RL+RO)	Mixed lesion (RL+RO)
Border	Well-defined with corticated margin	Well-defined scalloped 20% corticated border 20% ill-defined
shape	Unilocular	Unilocular or multilocular (honeycomb) Driven snow appearance
Combine impacted tooth	-	Often mandibular 3 rd molar

Calcifying odontogenic cyst (Gorlin cyst)

	Our case	Gorlin cyst
Gender	Female	Both
Age	14	10~30 (mean = 33)
Site	Left mandibular canine and premolar region	Most in the incisor and canine areas (65 %)
Symptom and Sign	Painful swelling	Asymptomatic
Jaw expansion	+	+
Root resorption or divergence	+	+/-

Calcifying odontogenic cyst (Gorlin cyst)

- Radiologic features

	Our case	Gorlin cyst
Density	Mixed lesion (RL+RO)	RL (RL+RO) → 1/3~1/2
Border	Well-defined with corticated margin	Well-defined
shape	Unilocular	Unilocular Occasionally multilocular
Combine impacted tooth	-	About 1/3 cases Canine



Fibrous dysplasia (monostotic)

	Our case	Fibrous dysplasia
Gender	Female	Both
Age	14	10~20
Site	Left mandibular canine and premolar region	Maxilla
Symptom and Sign	Painless swelling	Painless swelling
Jaw expansion	+	+
Displacement of mandibular canal	-	Superior displacement
Hormone related	Unknown	+ (Do not progress beyond puberty)



Fibrous dysplasia

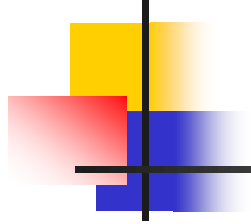
- Radiologic features

	Our case	Fibrous dysplasia
Density	Mixed lesion (RL+RO)	Ground glass
Border	Well-defined with corticated margin	Poorly-defined
shape	Unilocular	



Clinical impression

- Cemento-ossifying fibroma over tooth 33, 34, 35 area



Treatment Course



Treatment course

- Incisional biopsy, under LA
- Surgical plan: Excision and tooth 34 extraction
- Follow up: Wound healing and bone density evaluation

Treatment course

- 10/17/23 first visit to Pedo Dept
 - Gingival swelling near tooth 33, 34
 - Panorex taking: Well circumscribed radiolucency with radiopacity in the left mandibular area
 - Refer to OS Dept





Treatment course

- 101/07/23 first visit to OS:
 - L't mandible: Bony expansion
 - Arrange incisional biopsy on 102/07/26
- 102/07/26
 - Incisional biopsy
 - Histopathological report: Bone, mandible, left, incision, cemento-ossifying fibroma
- 102/08/02
 - Arrange excision under GA on 102/08/07

Treatment course

- 102/08/07 operation
 - Excision and tooth 34 extraction
 - Specimen was sent to H-P report



Treatment course

- 102/08/08 post operation panorex taking



Compared to panoramic film taken on 102/07/23, the tooth 34 was extracted. The border of the operation site was smooth after excision.



Treatment course

102/08/08 specimen HP report

- Pathologic diagnosis:

Bone, mandible, left, excision, cemento-ossifying fibroma



Discussion

*Cemento-ossifying fibroma of the mandible:
a case report and review of literature*



Abstract

- Cemento-ossifying fibroma: Fibro-osseous neoplasm and non-odontogenic tumors
- Derived from mesenchymal blast cells of PDL: Form fibrous tissue, cementum and bone, or combination
- Radiological perspective: Well defined, unilocular radiotransparency, as radiotransparent image with central opacifications, or as multilocular transparencies

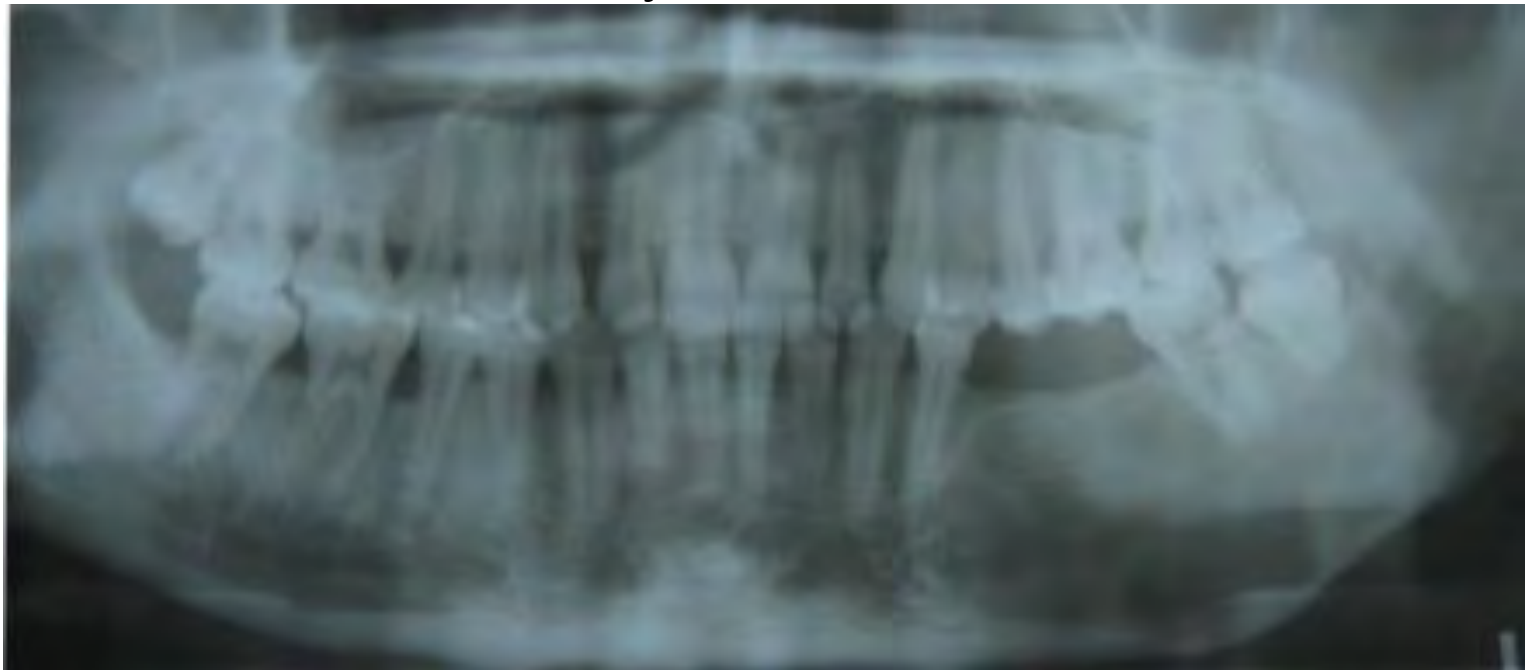


Introduction

- Benign mesenchymal odontogenic lesion
- Categorized under fibro-osseous lesions: fibrous dysplasia, osseous dysplasia, ossifying fibroma, cemento-ossifying fibroma and cemento-dysplasia
- Fibro-osseous lesions of the cranial and facial bones: Benign ,grow slowly, similar histopathological features as fibrous dysplasia, ossifying fibroma, and cemento-osseous dysplasia

Case

- A 23-year-old male patient reported to the clinics with a chief complaint of swelling in the left side of the lower jaw since 6 months. The swelling was gradually increasing in size and was not associated with pain. There was no significant medical and dental history



Case

■ Clinical examination

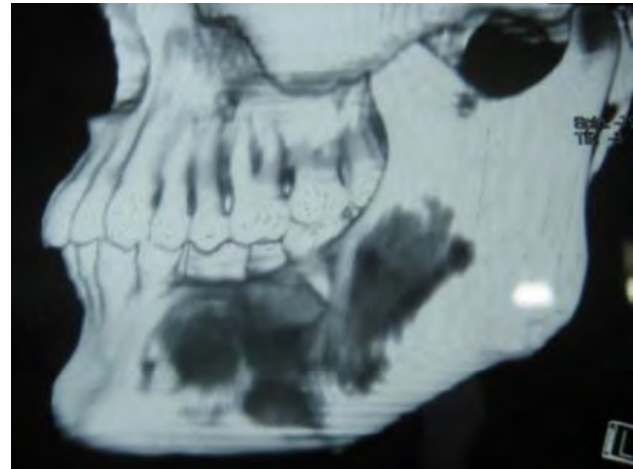
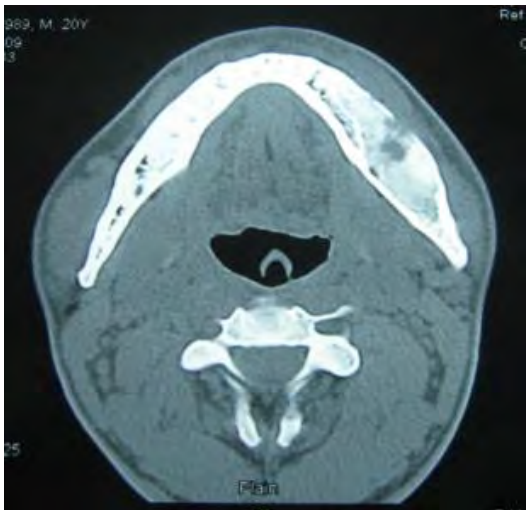
1. Oval shaped swelling, approximately 5x2 cm in size in lower left premolar and molar region
2. Mild bicortical expansion with bowing of the inferior border of mandible
3. The swelling was non-tender, bony hard in consistency with intact overlying mucosa.
4. There was no paresthesia



Case

■ CT

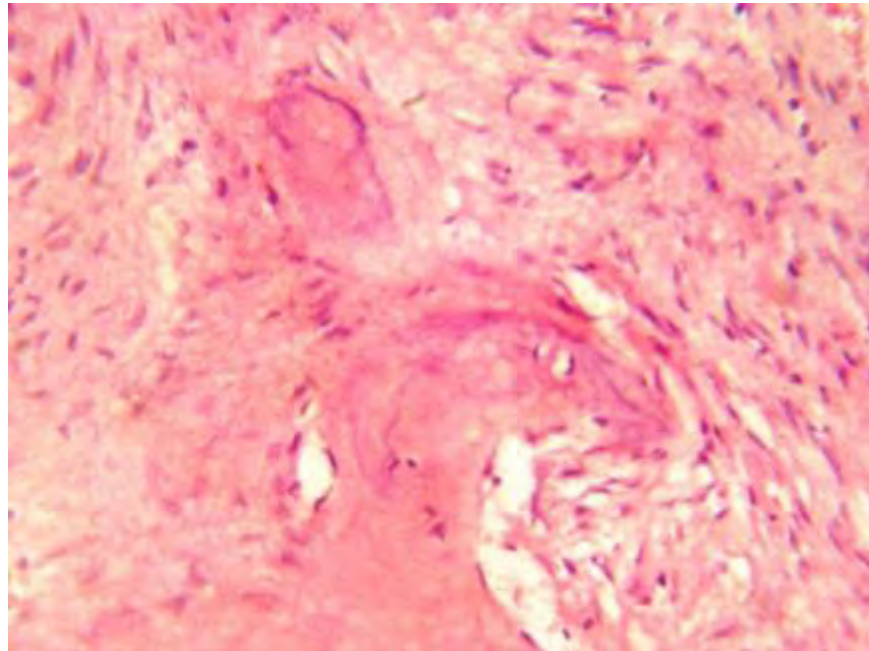
Large irregular expansile lesion measuring 5.5 x 1.9 cm with bicortical expansion and destruction of buccal cortex of mandible with intact lower border of mandible



Case

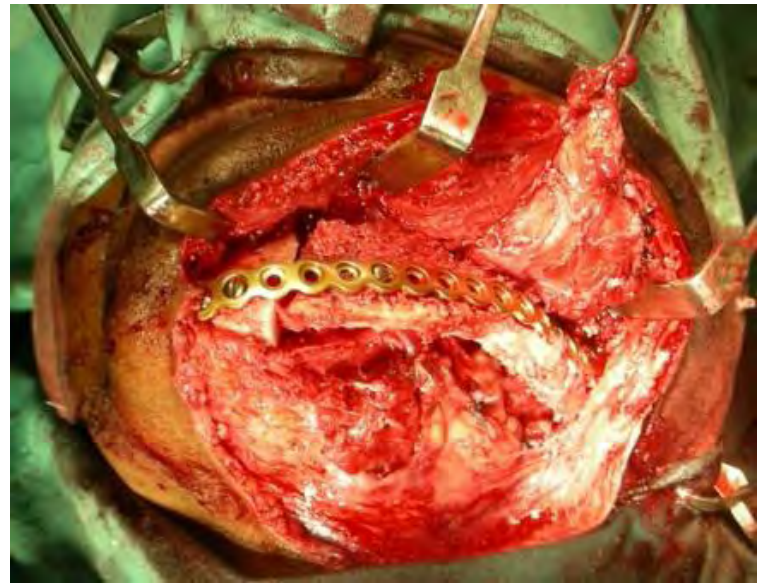
- Histopathology

Histological section showing diffused areas of ossification and calcifications in stroma



Case

- Surgical resection of the tumor, with reconstruction of the mandible was done under general anesthesia.





Discussion

- Fibro-osseous neoplasm
- Non-odontogenic tumors derived from the multipotent mesenchymal blast cells of the periodontal origin
- Form fibrous tissue, cementum and bone, or a combination of such elements.



Discussion

- A slow growing intra-bony mass
- In the mandibular premolars and molars region and in the ascending ramus
- Usually asymptomatic
- Women > men
- 20~40 y/o
- Children: Juvenile aggressive cemento-ossifying fibroma



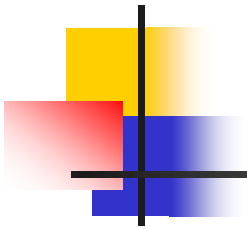
Discussion-treatment

- Uncomplicated cases: enucleation of the lesion with curettage
- Large-sized cementifying and ossifying fibroma: Mono-bloc resection with bone reconstruction
- Radiotherapy is contraindicated
- Prognosis is fair
- Recurrence: 28% of patients with mandibular central cemento-ossifying fibromas



Conclusion

- When surgical treatment is carried out at an early age, cemento-ossifying fibroma seldom recur.
- Their successful management therefore depends largely on the establishment of accurate clinical diagnosis aided by extensive investigation and careful interpretation of radiographs.



	Our Case	Journal
sex	Female	Male
age	14	23
site	Mandibular canine-premolar region	Mandibular premolar-molar region
symptom and sign	Painful swelling	Painless swelling
size	2.2 X 1.8 cm	5.2 X 2.2 cm
Bony expansion	+	+
Treatment	Excision	Mono-bloc resection



醫學倫理討論



醫學倫理

- 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

Tom Beauchamp & James Childress

六大原則- 1979



1. 行善原則(Beneficence)：即醫師要盡其所能延長病人之生命且減輕病人之痛苦。
2. 誠信原則(Veracity)：即醫師對其病人有「以誠信相對待」的義務。
3. 自主原則(Autonomy)：即病患對其己身之診療決定的自主權必須得到醫師的尊重。
4. 不傷害原則(Nonmaleficence)：即醫師要盡其所能避免病人承受不必要的身心傷害。
5. 保密原則(Confidentiality)，即醫師對病人的病情負有保密的責任。
6. 公義原則(Justice)，亦即醫師在面對有限的醫療資源時，應以社會公平、正義的考量來協助合理分配此醫療資源給真正最需要它的人。



行善原則(Beneficence)

- 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
- 做Excision後是否有減輕p't的疼痛感？或是使p't更不舒服？手術的介入時機是否恰當？



誠信原則(Veracity)

- 是否有清楚的向病人說明清楚疾病病程、治療計畫、預後、風險？
- 對於病人疾病嚴重程度是否有誠實的通知，盡到告知的義務？



自主原則(Autonomy)

- 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
- 在說明病情及治療計畫、風險之後，是否有讓病人充分自主的選擇治療計畫？在做麻醉以前，是否有說明完整之後再請病人自主的簽名同意？



不傷害原則(Non-maleficence)

- 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

→ 手術過程中，是否有造成不必要醫源性的傷害？詳實的說明解釋治療計畫，並且讓病人對於治療計畫沒有疑問，使得心理方面壓力不那麼大，也是一種不傷害原則



保密原則(Confidentiality)

告知的對象

1. 本人為原則
2. 病人未明示反對時, 亦得告知其配偶與親屬
3. 病人為未成年人時, 亦須告知其法定代理人
4. 若病人意識不清或無決定能力, 應須告知其法定代理人. 配偶. 親屬或關係人
5. 病人得以書面敘明僅向特定之人告知或對特定對象不予告知



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及法律之前人人平等
- (4) 先來先服務與急重症優先

→ 手術的必要性？住院時間是否太長？藥物的必要性？



臨床案例討論

本案例符合自主原則	病人已了解自己的病狀，治療方法，手術過程及術後復發的可能性及併發症，並且有簽麻醉同意書。
本案例符合行善原則	預防傷害+移除傷害 (Excision operation)
本案例符合不傷害原則	詳實的說明解釋治療計畫以減輕病人心理壓力
本案例符合保密原則	病人為未成年人時，有告知其法定代理人(母親)



~Thanks for your attention!~