

指導醫師：  
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# Case Report

Intern B 组

2014/09/30



# 工作分配

- General data & 醫學倫理討論: 羅世洺
- Differential diagnosis & Treatment course:  
郭偉祥、龔修弘
- Discussion: 簡瑜文

# General Data

- ☞ Name: 000
- ☞ Sex: Female
- ☞ Age: 17 y/o
- ☞ Native: 高雄市
- ☞ Marital status: 未婚
- ☞ Attending staff: 0 0 0 醫師
- ☞ First visit : 103/07/11

# Chief Complaint

- ✎ Pain over the left lower posterior area, referred from LDC for bony expansion over tooth 33,34,35 area



103/07/11

# Present Illness

- ✎ This 17 y/o female went to LDC because of pain over the lower left posterior area. The dentist found a bony expansion over the alveolar ridge of the tooth 33,34,35 area. Therefore, the dentist referred her to our OS OPD for further examination and treatment.

# Intraoral examination

- ✎ Surface: Smooth
- ✎ Shape: Dome
- ✎ Size: 2.5 cm in diameter
- ✎ Color: Pink
- ✎ Consistency: Hard
- ✎ Fluctuation (-)
- ✎ Mobility: Fixed
- ✎ Pain (+)
- ✎ Tenderness (-)
- ✎ Induration (-)
- ✎ Ulceration (-)
- ✎ Teeth tilting: tooth 33 (distal) 34 35 (mesial)



# Image finding — Panorex



There is a well-defined homogeneous round-shaped mild radiopacity over the L't parasymphysis area, extending from mesial root of tooth 31 to distal root of tooth 35, and from middle third of crown of tooth 33,34 to 0.5cm above the left mandibular border, measuring approximately 2.5 x 2.5 cm and causes displacement of tooth 32, 33, 34, 35.

# Image finding — Panorex



## Dental findings :

- ❖ Horizontal impaction: tooth 38,48
- ❖ Distal-tilting: tooth 32, 33
- ❖ Mesial-tilting: tooth 34,35,36

# Past medical history

- ∞ Underlying disease (-)
- ∞ Hospitalization (-)
- ∞ Surgery under GA (-)
- ∞ Allergy: Denied

# Past Dental History

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

# Personal Habit

## ☞ Risk factors related to malignancy

- Alcohol drinking (-)
- Betel quid chewing (-)
- Cigarette smoking (-)

## ☞ Special oral habits: Denied

# Differential Diagnosis



# Differential Diagnosis

- ✎ Intrabony or peripheral?
- ✎ Inflammation, cyst, or neoplasm?
- ✎ Benign or malignant?

# Intrabony or Peripheral

|                                  | Our case    | Intrabony   | Peripheral                        |
|----------------------------------|-------------|-------------|-----------------------------------|
| <b>Mucosal lesion</b>            | -           | -           | +                                 |
| <b>Bone expansion</b>            | +           | +/-         | -                                 |
| <b>Cortical bone destruction</b> | -           | +/-         | -                                 |
| <b>Consistency</b>               | <b>Hard</b> | <b>Hard</b> | <b>Soft,firm,rubbery</b><br>..... |
| <b>Induration</b>                | -           | -           | +/-                               |

→Our case is a **Intrabony**

# Inflammation or neoplasm

|                            | Our case             | Inflammation              | Neoplasm                    |
|----------------------------|----------------------|---------------------------|-----------------------------|
| <b>Regress or progress</b> | <b>Progress</b>      | <b>Regress</b>            | <b>Progress</b>             |
| <b>Symptom</b>             | -                    | +                         | +/-                         |
| <b>Growth rate</b>         | <b>Months, years</b> | <b>Hours, days, weeks</b> | <b>Weeks, months, years</b> |
| <b>Lymph node enlarge</b>  | -                    | +/-                       | +/-                         |
| <b>Tenderness</b>          | -                    | -                         | -                           |
| <b>Fluctuation</b>         | -                    | +/-                       | -                           |

→Our case is a **neoplasm**.

# Benign or malignant

|  | Our case                        | Benign              | Malignant             |
|--|---------------------------------|---------------------|-----------------------|
| <b>Border</b>                          | <b>Well defined radiopacity</b> | <b>Well-defined</b> | <b>Poorly defined</b> |
| <b>Pain</b>                            | +                               | -                   | +                     |
| <b>Induration</b>                      | -                               | -                   | +                     |
| <b>Swelling with intact epithelium</b> | +                               | +                   | -                     |
| <b>Progress</b>                        | <b>Slow</b>                     | <b>Slow</b>         | <b>Fast</b>           |
| <b>Metastasis</b>                      | -                               | -                   | +                     |
| <b>Lymphadenopathy</b>                 | -                               | -                   | +                     |

→Our case is a **benign tumor**

# Working Diagnosis



# Working Diagnosis

- ∞ Cemento-ossifying fibroma
- ∞ Cemento-osseous dysplasia, focal
- ∞ Fibrous dysplasia
- ∞ Ameloblastoma, desmoplastic type

# Cemento-ossifying fibroma

|                    | Our case                                   | Cemento-ossifying fibroma  |
|--------------------|--|----------------------------|
| Gender             | Female                                     | Female                     |
| Age                | 17   | 20~40                      |
| Site               | Left mandibular canine and premolar region | Mandibular premolar region |
| Symptom and Sign   | Painful swelling                           | Painless swelling          |
| Jaw expansion      | +  | +                          |
| Teeth displacement | +  | +                          |

# Cemento-ossifying fibroma

## ☞ Radiologic features

|                               | Our case     | Cemento-ossifying fibroma                                  |
|-------------------------------|--------------|--|
| Density                       | RO           | RO   |
| Border                        | Well-defined | Well-defined with corticated margin<br>R/L rim is uncommon |
| Shape                         | Round        | Ovoid or Round   |
| Root divergence or resorption | +            | +  |



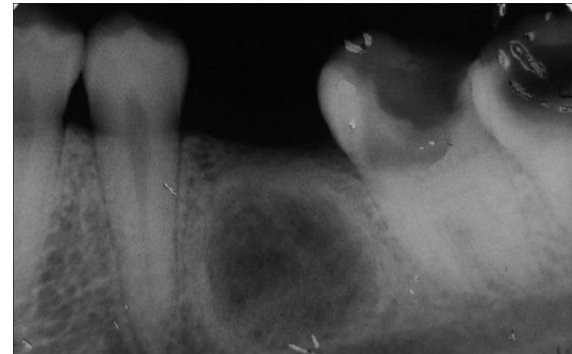
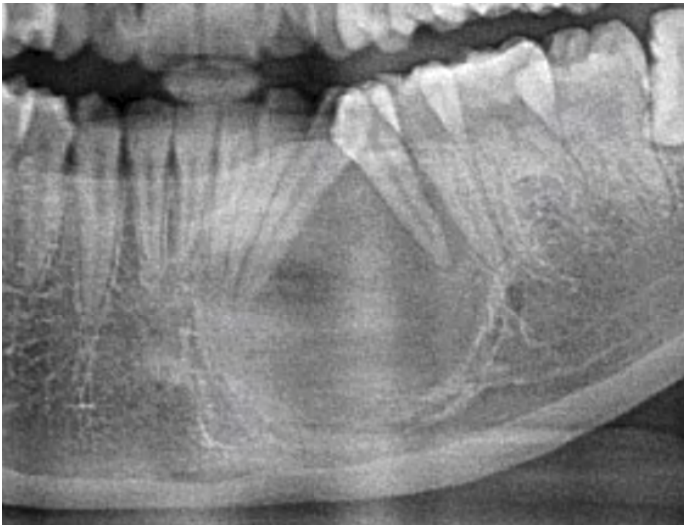
# Cemento-osseous dysplasia, focal

|                  | Our case                                   | Cemento-osseous dysplasia, focal   |
|------------------|--|------------------------------------|
| Gender           | Female                                     | Female                             |
| Age              | 17   | 30~60                              |
| Site             | Left mandibular canine and premolar region | Jaw, especially posterior mandible |
| Symptom and Sign | Painful swelling                           | Painless                           |
| Jaw expansion    | +  | -                                  |

# Cemento-osseous dysplasia, focal

## ☞ Radiologic features

|                               | Our case     | Cemento-osseous dysplasia, focal   |
|-------------------------------|--------------|------------------------------------|
| Density                       | RO           | Mixed                              |
| Border                        | Well-defined | Well-defined with irregular border |
| Shape                         | Round        | Unilocular                         |
| Root divergence or resorption | +            | -                                  |



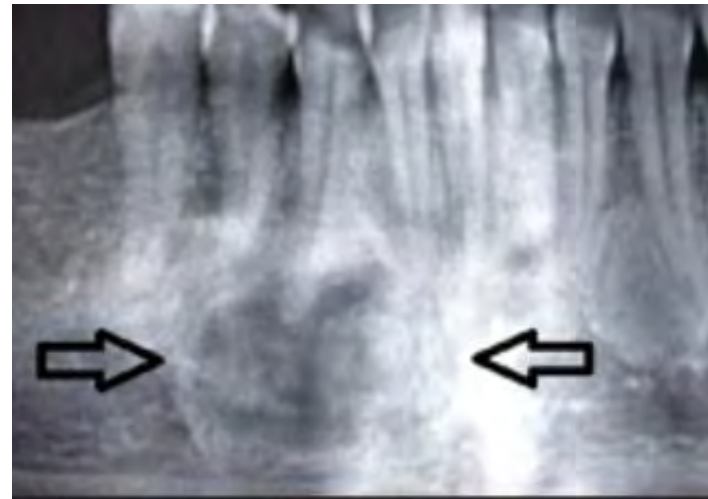
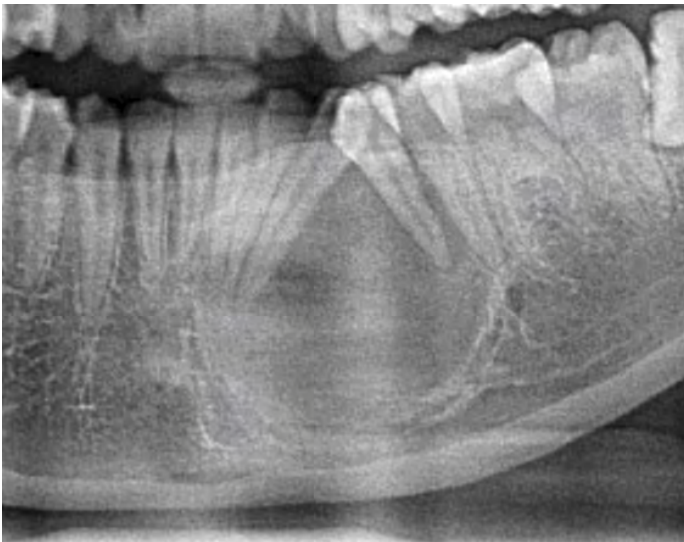
# Fibrous dysplasia (monostotic)

|                    | Our case                                   | Fibrous dysplasia (monostotic)        |
|--------------------|--|---------------------------------------|
| Gender             | Female                                     | Both                                  |
| Age                | 17   | 10~20                                 |
| Site               | Left mandibular canine and premolar region | Maxilla                               |
| Symptom and Sign   | Painful swelling                           | Painless swelling                     |
| Jaw expansion      | +  | +                                     |
| Teeth displacement | +  | Superior displacement                 |
| Hormone related    | Unknown                                    | +<br>(Do not progress beyond puberty) |

# Fibrous dysplasia (monostotic)

## ☞ Radiologic features

|         | Our case     | Fibrous dysplasia (monostotic) |
|---------|--------------|--------------------------------|
| Density | RO           | Ground glass                   |
| Border  | Well-defined | Poorly-defined                 |
| Shape   | Round        | Unilocular                     |



# Ameloblastoma , desmoplastic type

|                       | Our case                                      | Ameloblastoma , desmoplastic type   |
|-----------------------|---|-------------------------------------|
| Gender                | Female  | No                                  |
| Age                   | 17  | Wide age range<br>Uncommon in 10-19 |
| Site                  | Left mandibular canine<br>and premolar region | Posterior mandible                  |
| Symptom and<br>Sign   | Painful swelling                              | Painless swelling                   |
| Jaw expansion         | +   | +                                   |
| Teeth<br>displacement | +   | -                                   |

# Ameloblastoma , desmoplastic type

## ☞ Radiologic features

|                               | Our case     | Ameloblastoma , desmoplastic type |
|-------------------------------|--------------|-----------------------------------|
| Density                       | RO           | Mixed or RL                       |
| Border                        | Well-defined | Poor-defined                      |
| Shape                         | Round        | Mutilocular                       |
| Root divergence or resorption | +            | -                                 |



# Clinical impression

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

# Treatment Course



103/07/11(許瀚仁醫師)

- ☞ First visit

- ☞ Biopsy → H-P: cemento-ossifying fibroma

103/07/18

- ☞ OP scheduled on 103/08/13

- ☞ Arrange CT

103/08/04

- ☞ G.A routine

- ☞ Ask for second opinion for mand. lesion

- ☞ OP scheduled on 103/08/28

# Image Finding — Oral CT

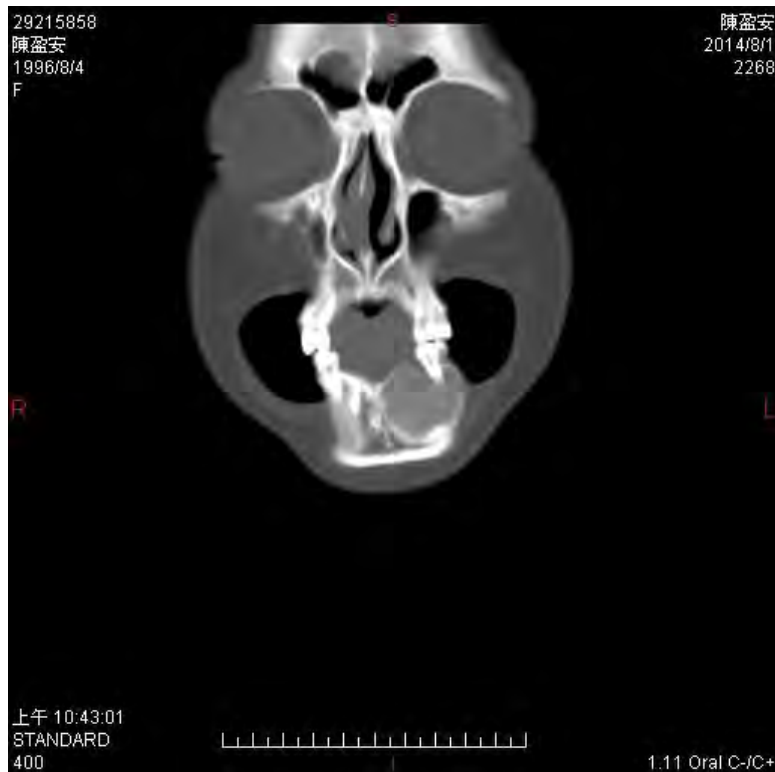
- There is a bony labial and lingual bony expansion with radiopacity over the parasymphysis area (2.3x2.4x2.6 cm) with intact but thinning buccal and lingual cortex.



**Axial view (bone window)**

# Image Finding — Oral CT

- There is a bony labial and lingual bony expansion of the left mandibular body (2.3x2.4x2.6 cm) with intact cortex, and cause displacement of teeth



coronal view (bone window)

# Image Finding — Chest PA (103.8.4)

Impression:

No imaging evidence of active cardiopulmonary disease.



# Image Finding — EKG(103.8.4)

## EKG Diagnosis: Sinus Bradycardia

ID: 29215858

Examined: 14/08/04 10:00 Judge < - >

Within Normal Limits.

Name:

HR: 59 BPM

Axis: 70°

QRS: 73 ms

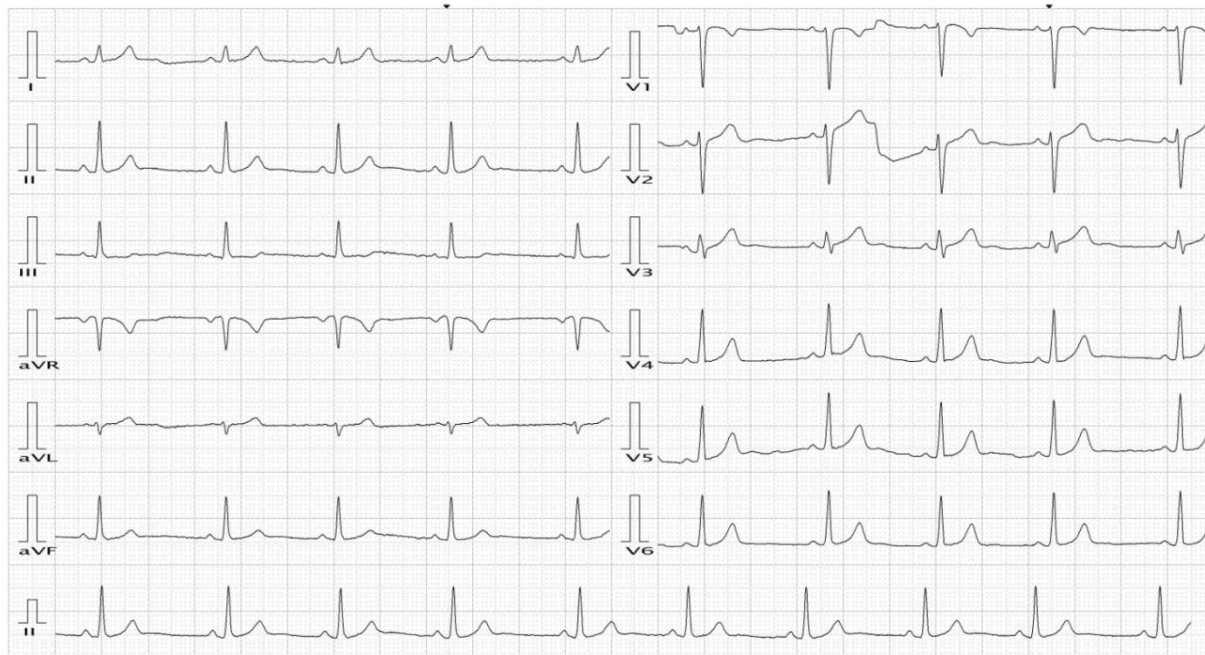
QTc: 387

PQ: 137 ms

RV5+SV1: 24.7mm

Comments:

M.D.



FME CO., LTD.

# Histological Diagnosis

- ✂ Pathologic diagnosis: cemento-ossifying fibroma, tooth 33,34,35 area

# Imaging in the Diagnosis of Cemento-ossifying Fibroma: A Case Series



Journal of Clinical Imaging Science; 2012;2:52

R Mithra, Pavitra Baskaran, M Sathyakumar

# Introduction

- ✎ Benign fibro-osseous lesion
- ✎ Well-defined
- ✎ RL, RL/RO, RO
- ✎ Unilocular
- ✎ Origin of COF: periodontal membrane
- ✎ Clinical: slow-growing mass, asymptomatic
- ✎ Histology: contains cementum, immature bony trabeculae

# Case 1

- 32-year-old female

- Chief complain:

Swelling in the region of the upper front teeth for about 5 months

- Present illness:

This 32 y/o female suffered from swelling over frontal upper area for about 5 months. This lesion was asymptomatic and gradually increased in size.

# Case 1

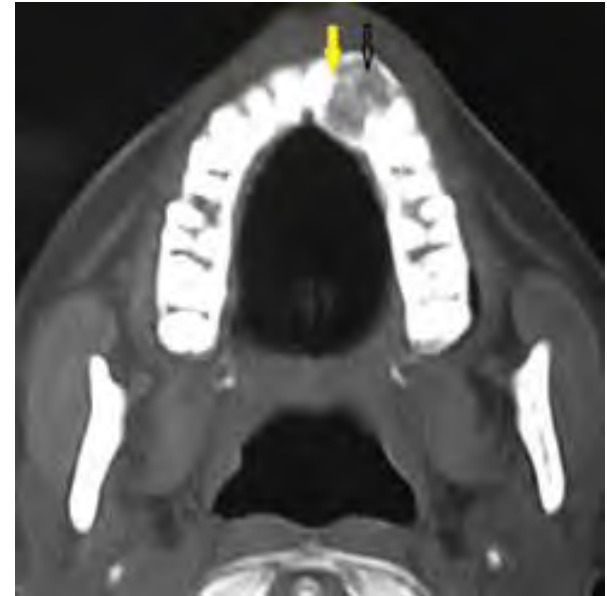
- Oral examination:

A diffuse swelling in the region of teeth 21-23 on the labial aspect. The swelling was 4 x3 cm in size and had bony expansion. Tooth 23 was displaced distally.

On palpation, the swelling was hard, non-tender, and was not fluctuant and compressible.

# Case 1

## ○ X-ray finding



- ✓ Well-defined unilocular RL/RO lesion (calcification)
- ✓ Left anterior maxillary region in relation to tooth 21,22
- ✓ Tooth 21 was displaced mesially and tooth 22 distally
- ✓ Bony expansion

# Case 2

- ◉ Middle-aged female

- ◉ Chief complaint:

Swelling on the right cheek for 6 months

- ◉ Present illness

This middle-aged female suffered from swelling without pain on right cheek 6 months ago. This swelling gradually increased in size.

# Case 2

- Oral examination

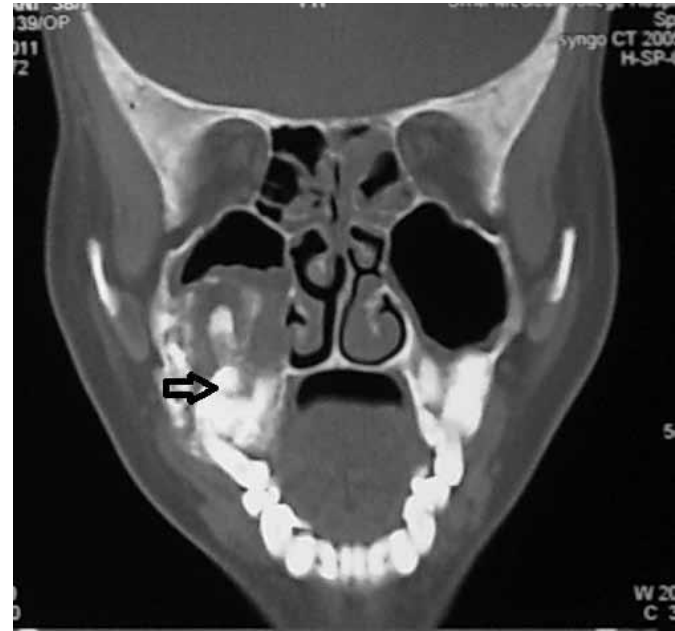
A diffuse swelling was on alveolar mucosa of tooth 13 to 16 buccal side. The surface of the lesion was smooth.

On palpitation, the swelling was found to be hard and non-tender.

Tooth 14,15 mobility, grade II

# Case 2

## ● X-ray finding



- ✓ **Well-defined** lesion, scattered calcification and teeth within it
- ✓ On tooth 13 to 16 area, involving the floor of the maxillary sinus
- ✓ **Bony expansion**

# Case 3

- ◉ 52-year-old female patient

- ◉ Chief complaint:

Swelling over right posterior lower area for 6 months

- ◉ Present illness:

This 52 y/o female suffered from swelling without pain on right posterior lower area 6 months ago. This swelling gradually increased in size.

# Case 3

- Oral examination:

A diffuse swelling measuring about 4 × 3 cm in size on tooth 44 to 47 buccal and lingual side with **cortical plate expansion**.

The swelling lacked tenderness, had a smooth surface, and was hard.

Tooth 45,47 mobility grade II

# Case 3

## ○ X-ray finding:



- ✓ Well-defined RL/RO lesion on tooth 44 to 47 area
- ✓ Expansion of buccal and lingual cortical plates
- ✓ Tooth 45,47 displacement, and tooth 47 root resorption

# Differential Diagnosis

- ✎ Ameloblastoma
- ✎ CEOT
- ✎ Odontogenic myxoma
- ✎ Cemento-ossifying fibroma
- ✎ Fibrous dysplasia

→cemento-ossifying fibroma

# Discussion: Cemento-Ossifying Fibroma

## ∞ Non-odontogenic tumor

- Blast cells of mesenchymal tissue of periodontium

## ∞ Clinically

- 30~40 y/o → our case (O/X)
- Female > male → our case (O)
- Mandibular premolar region → our case (O/X)
- Slow growing → our case (O)
- Asymptomatic → our case (O/X)

# Discussion : Cemento-ossifying fibroma

- ∞ Most reports suggest earlier trauma
  - Our case (X/O), case 3: tooth 46 extracted
- ∞ Well-defined RL,RL/RO,RO lesion with cortical margin
  - Our case (O)

# Discussion : Cemento-ossifying fibroma

- ∞ The important diagnostic feature in COF:
  - centrifugal growth, round tumor mass
- ∞ Root resorption, tooth displacement
  - active proliferating stage

# Discussion: Differential Diagnosis

- Fibrous dysplasia
  - Ground glass, linear expansion
- Cemento-osseous dysplasia
  - Bony expansion (-)
  - Multifocal
- Condensing osteitis
  - Vitality test
  - Bony expansion (-)

# Discussion: Differential Diagnosis

- Pindborg's tumor (calcifying epithelial odontogenic tumor)
  - Impacted teeth
  - Scalloped margin
  - Driven snow in the radiograph
- Odontoma
  - Tooth-like structure

# Conclusion

- ✎ Via conventional and specialized radiographs
  - Location
  - Expansion of cortical plates
  - Internal architecture
  - Periphery of the lesion
  - Effect of the lesion on adjacent structures
- ✎ Imaging also plays a pivotal role in outlining the treatment plan for cement-ossifying fibroma

# 醫學倫理討論



# Tom Beauchamp & James Childress

## 醫學倫理七大原則

- 生命的神聖性(Sanctity of life)：尊重自己和他人生命，尊重生命的價值
- 行善原則(Beneficence)：醫師要盡其所能延長病人之生命且減輕病人之痛苦。
- 誠信原則(Veracity)：醫師對病人有「以誠信相對待」的義務。
- 自主原則(Autonomy)：病患對自己之診療決定的自主權須得到醫師的尊重。
- 不傷害原則(Nonmaleficence)：醫師要盡其所能避免病人承受不必要的身心傷害。
- 保密原則(Confidentiality)：醫師對病人的病情負有保密的責任。
- 公義原則(Justice)：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

- ◎ 病人接受enucleation後是否緩解疼痛（主訴）情形？
  - Enucleation後疼痛已較為緩解，並告知病人加強oral hygiene，以獲得更好的wound healing

# 誠信原則

- ◎ 對於病人的疾病是否確實通知，盡到告知的義務？
- ◎ 是否有清楚的向病人說明清楚治療計畫、預後、風險？
  - 病人於初診當日做切片檢查，一周後告知切片結果，詳細說明治療計畫 (enucleation under GA)、預後、風險（併發症：嘔吐、喉嚨痛、腫脹等）並取得病人及家屬同意後才進行手術。

# 自主原則

- ◎ 當醫師充分說明病情及治療計畫、風險之後，是否讓病人充分自主地選擇治療計畫？
  - 病人及家屬選擇並同意醫師的建議。
- ◎ 在做全身麻醉以前，是否有說明完整之後再請病人自主的簽名同意？
  - 已充分說明並與家屬溝通，簽署麻醉及手術同意書後才進行手術。

# 不傷害原則

- ◎ 手術過程中是否造成不必要醫源性傷害？
  - 沒有不必要醫源性傷害。
- 是否有先完整瞭解病人的病史？
  - 初診時詢問並確認病人無特殊病史、系統性疾病，和病人充分溝通後再決定治療方式及術後照顧。

# 保密原則

- 無論病人之門診病歷、手術記錄、住院記錄等皆涉及病人之隱私權，醫療工作者應善盡保密原則，不得任意洩漏，發生「病歷外流」之情形，以避免引起醫療糾紛。
- 告知病人之病情時應以本人為原則，病人未明示反對時，亦得告知其配偶與親屬。以本**case**為例：除告知本人病情外，也一併告知病人家屬。

# 公義原則

- ✎ 本case經病理切片檢查為cemento-ossifying fibroma，治療方式為surgical excision，本case採用enucleation的方式清除病灶，使復發率降到最低。

# 醫學倫理總結

- ❧ 病史詢問、主訴、病灶描述（X-ray、切片檢查）治療計畫等應確實記錄。以呈現完整的治療結果。
- ❧ 在進行手術等具侵犯性治療前，須請病人簽屬同意書，並詳細說明術後可能併發症及預後、術後衛教等。手術過程避免造成不必要醫源性傷害。
- ❧ 不得任意洩漏病人病歷及其相關紀錄。

# References

- ✎ Oral & Maxillofacial Pathology Second edition p.553-555,p557-560,p563-565 p611-615
- ✎ Desmoplastic Ameloblastome: A case report ; J Dent Res Clin Dent Prospect 2011 Winter; 5(1):27-32
- ✎ Monostotic Fibrous Dysplasia: A Case Report Canitezzer et al., Dentistry 2012, 3:2
- ✎ Cemento-ossifying fibroma of the mandible: Presentation of a case and review of the literature ; J Clin Exp Dent. 2011;3(1):e66-9.
- ✎ Imaging in the Diagnosis of Cemento-ossifying Fibroma: A Case Series;Journal of Clinical Imaging Science; 2012;2:52

**Thank you for your attention**

