

# Case report

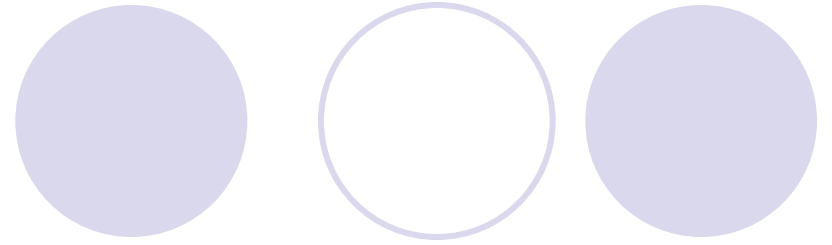
指導醫師：陳玉昆醫師暨口腔病理科全體醫師

報告者：Intern F組

楊忠祐、林沅醇、陳善婷、賴柏勳

報告日期：102.01.28

# General data



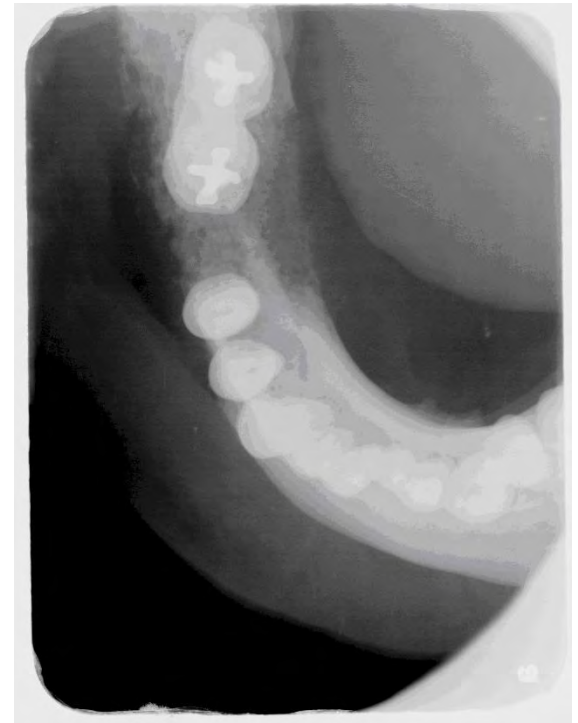
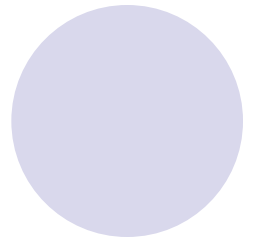
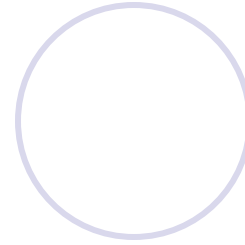
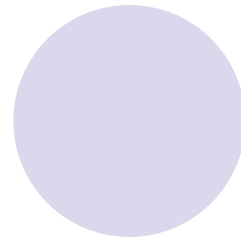
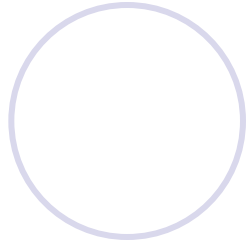
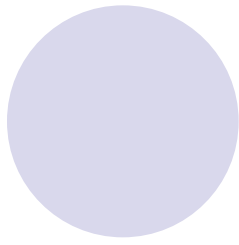
- Name : 000
- Sex : Male
- Age : 61y/o
- Native : 高雄市
- Marital status : 已婚
- Attending V.S. : 000 醫師
- First visit : 102/11/19

**102/12/14**

# Chief Complaint

- Unhealed wound after extraction of tooth 46 at LDC in October, 102





102/11/19

# Present Illness

- This 61 y/o male felt discomfort over R't mandibular area, and had an extraction of tooth 46 in LDC in October, 102. But the wound was still unhealed, so he went to LDC for help. The dentist found there is a intrabony lesion and referred him to KMUH OS dept for further examination.



# Past history

- Past medical history
  - Underlying disease: (+), DM under medication control, HBV(+), Fatty liver
  - Hospitalization: (-)
  - Surgery under GA: (-)
  - Allergy: (-)
- Past Dental History
  - General routine dental treatment
- Attitude to dental treatment : co-operative

# Personal History



- Risk factors related to malignancy
  - Alcohol : (+), few
  - Betel quid : (+), 10-20 nuts/day, 7yrs, quit for 8 yrs
  - Cigarette : (+), 40 yrs, 2PPD, quit for 1 month
- Special oral habits : denied

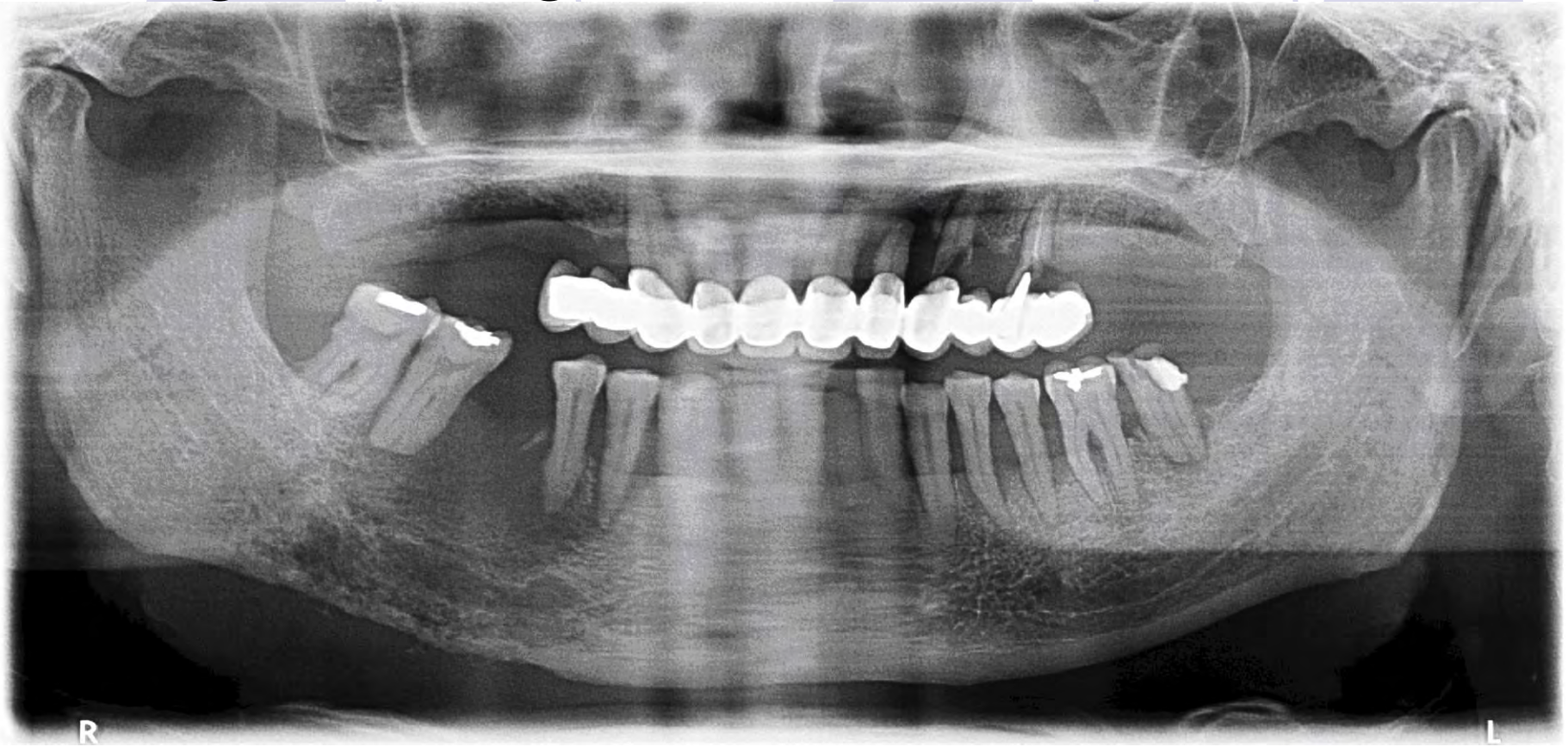
# OMF Examination

- MMO : 40mm
- No malignant-like change in oral mucosa
- Numbness(-)
- Pain(+)
- Swelling(+)
- Tenderness(+)
- LAP (-)





# Image finding – Panorex

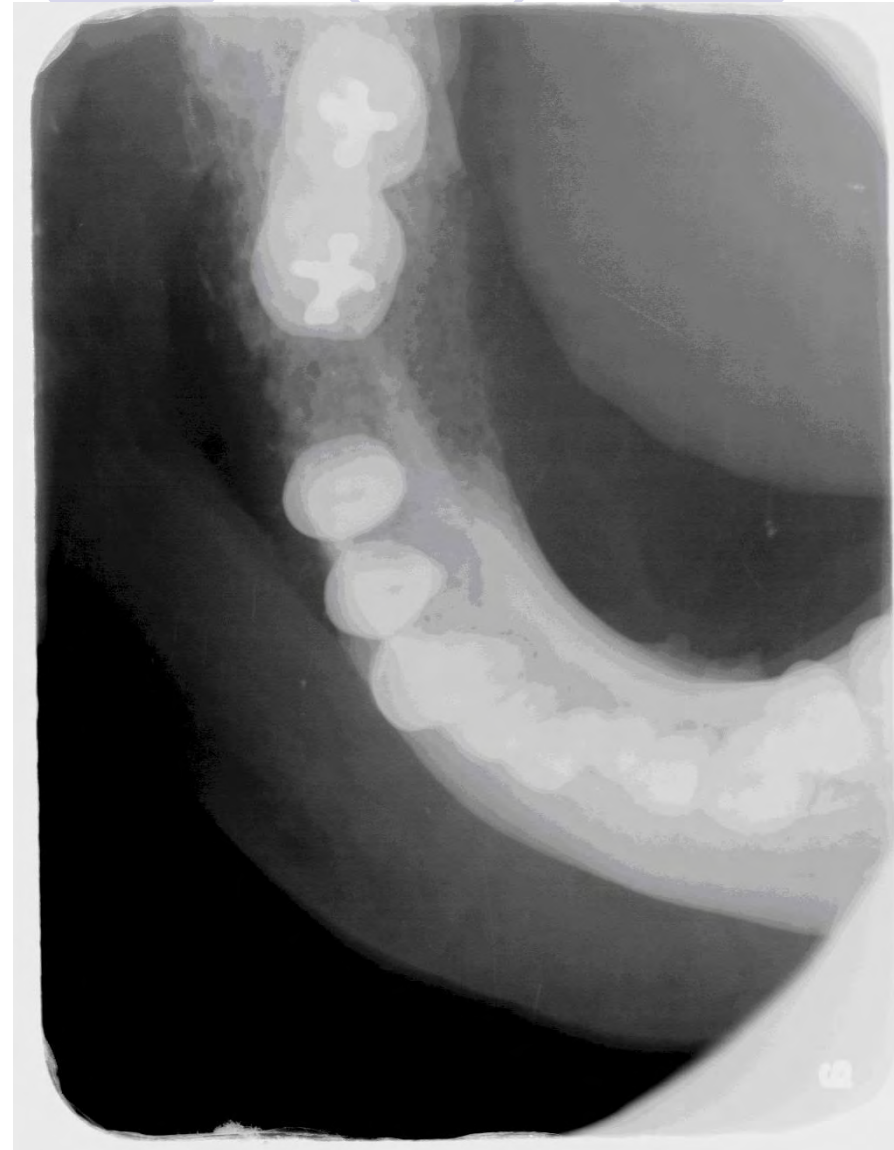


- Size: about 4.5 x 5.0 cm
- Radiolucence mixed with radiopaque ragged and poorly defined border
- Moth-eaten appearance
- Right mandibular canal walls destructed

102/11/19

# Image finding – Occlusal film

- Size: 4.5 x 3.5 cm
- R-L mixed R-O
- Moth-eaten appearance
- Poor-defined
- Irregular border
- Tooth 44.45.47.48 involved
- No bone expansion
- Non-corticated
- Cortical bone (both lingual and buccal): destructed



102/11/19

# Image finding – Chest PA (102/11/26)

- Impression :

- 1) No radiological evidence of active cardiopulmonary disease.
- 2) Spondylosis and scoliosis of the T-, L-spine.

# Image finding – Oral CT(102/11/29)

===== 【口腔癌癌症分期統一報告格式(Based on RSROC20120412)】  
=====

## 1. TNMStage: T4aN0MB

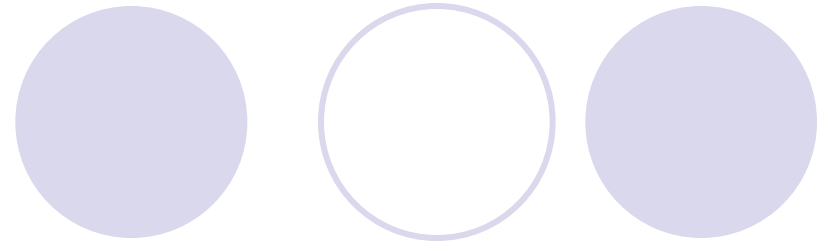
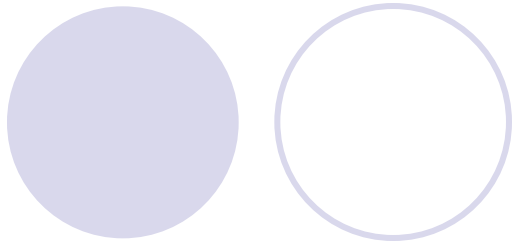
① Stage group if no distant metastasis (M0): IVA

## 2. Tumor location / Size

① ■ Measurable lesion-Size: 5.95 cm (largest diameter)

② Laterality: right (Se/Im:3/21)

③ Tumor location: ■ Lower gingiva



### 3. Tumor invasion

- ①  Moderately advanced local disease: tumor invades
- ② Lip:
- ③ Oral cavity:  through cortical bone

### 4. Regional nodal metastasis (Lymph Node)

- ①  No regional nodal metastasis

### 5. Distant metastasis (in this study)

- ①  No or Equivocal

# Image finding – EGD<sub>(102/12/03)</sub>

- Comments :


H. Pylori test : Negative Reported

# Image finding – Abdomen Echo

(102/12/02)

- Fatty liver

# Image finding – Bone scan

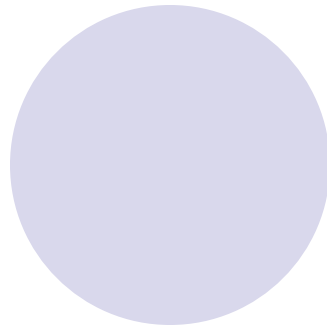
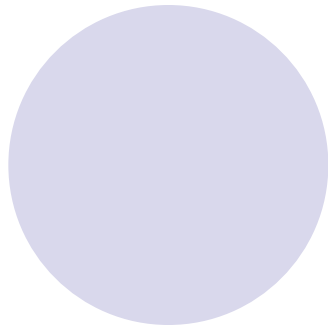


- Impression :

- Active bone lesions involving the above bony structures, especially in the mandible.



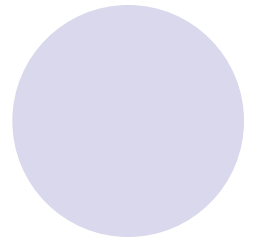
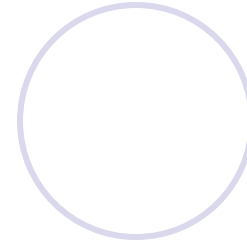
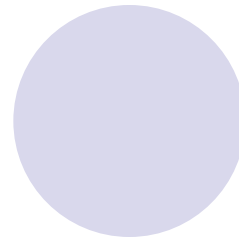
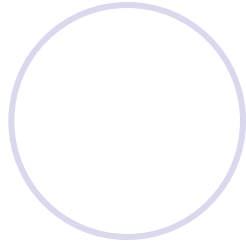
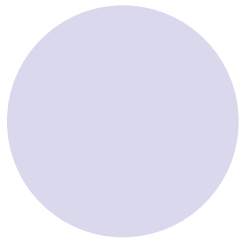
# Differential Diagnosis





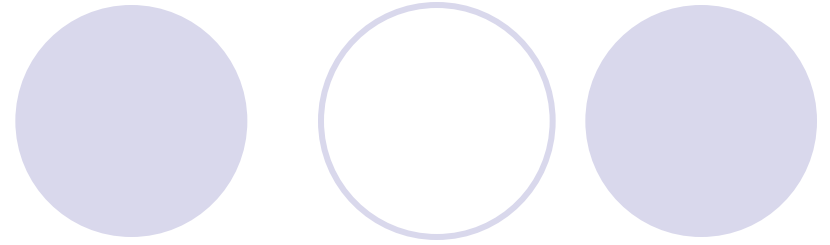
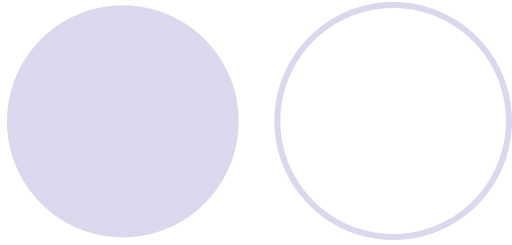
# Our case

- Age and gender: 61 years-old, male
- Pain: (+)
- Tenderness: (+)
- Swelling: (+)
- Mobility: fixed
- Consistency: **rubbery to firm**
- Destruction of bone structures: (+)
- Development: **moderately rapid-growing**



	Our case	Inflammation	Cyst	Neoplasm
Fever /local heat	-	+	-	-
Duration	1+ months	days to months	years	Months to years
Pain	+	+	-/+	-/+
Consistency	rubbery/firm	rubbery/firm	rubbery	variable
Sclerotic margin	-	-	+	-

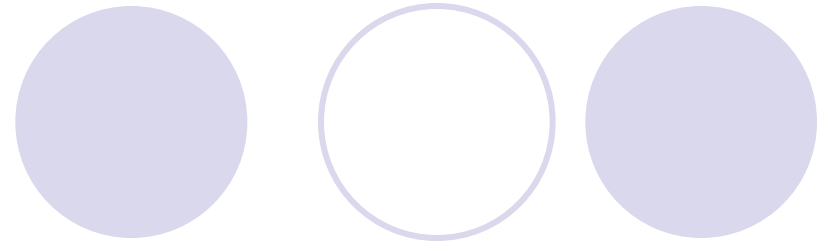
→ Neoplasm



	Our case	Benign	Malignant
Progressive	rapid	Slow	Variable
Swelling with intact epithelium	-	+	-
Pain	+	+/-	+/-
Mobility	Fixed	Movable	Fixed
Sclerotic margin	-	-	+

→ Malignant

# Working diagnosis



## Intrabony malignant tumor

- Central Squamous cell carcinoma
- Osteosarcoma
- Metastatic tumors in jaw bone

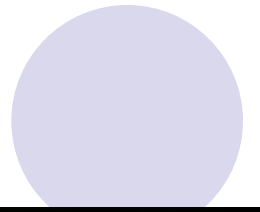
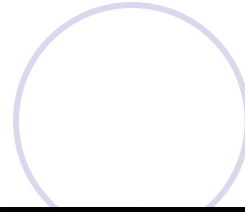
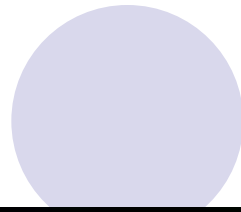
Others	Reticulum cell sarcoma	Malignant minor salivary gland tumor	Chondrosarcoma	Ewing's sarcoma
Less compatible	Rare 10-60(avg. 37)	Commonly firm exophytic lesion and seldom ulcerate except as a result of trauma	More maxilla	Young age (5-24)

# Central Squamous cell carcinoma

	<b>Our case</b>	Central SCC
Gender	Male	M:F $\approx$ 2:1
Age	61	30-70(peak 57)
Site	Mandible (premolar-molar region)	Md:Max = 4.2:1
Paresthesia	-	+
Swelling	+	+
Radiography	Ill-defined RL with ragged, irregular border	Ill-defined RL with irregular border
Teeth displacement /root resorption	-	+
	No apparent mucosal involvement	

# Osteosarcoma

	<b>Our case</b>	<b>Osteosarcoma</b>
Gender	Male	M>F
Age	61	10-40(peak 27)
Site	Mandible (premolar-molar region)	Md:Max = 2:1 (predominant: mandibular body)
Paresthesia	-	+(14%)
Swelling	+	+
Radiography	Ill-defined RL with ragged, irregular border	Ill-defined, RL irregular border (sunburst appearance by osteophyte)



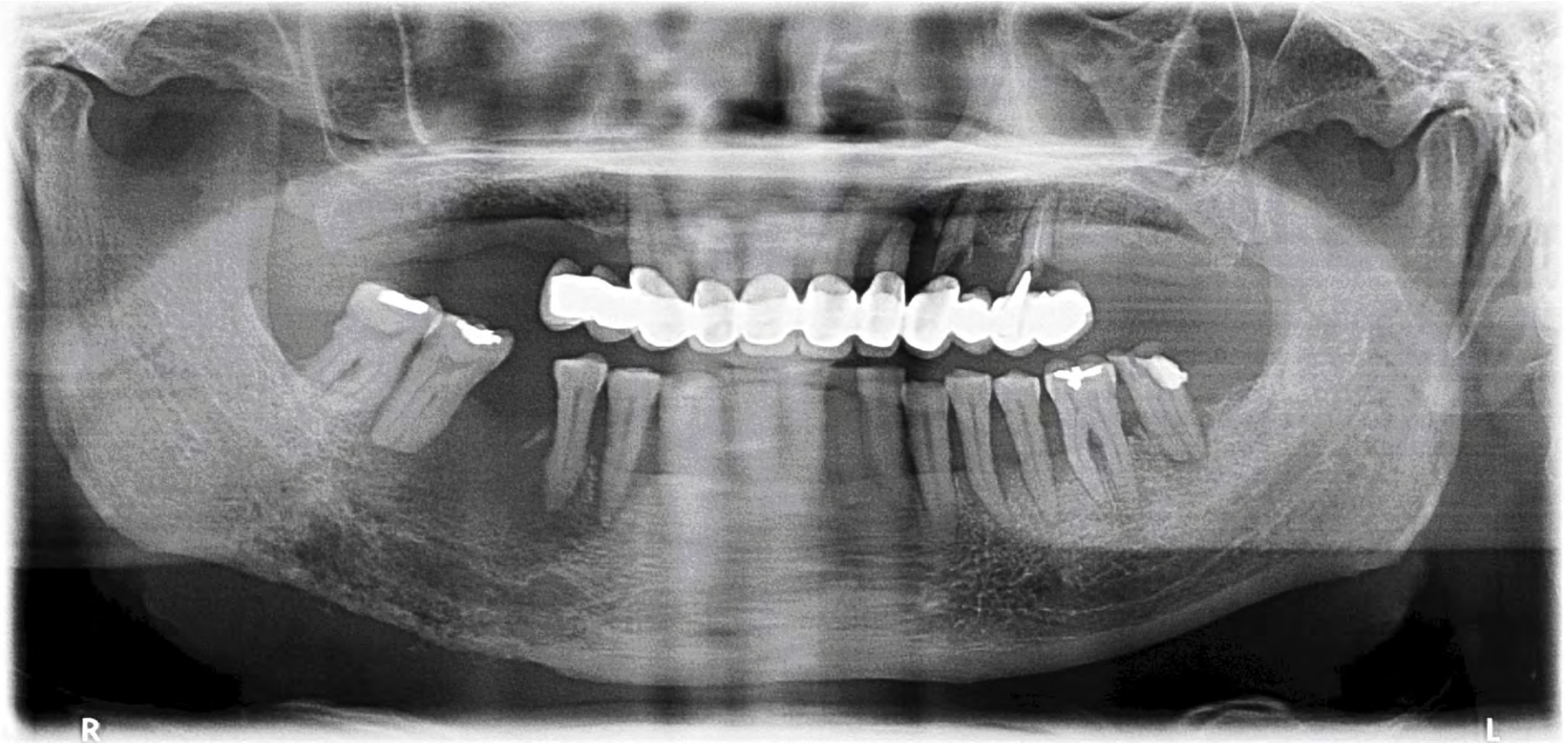


# Metastatic tumors in jaw bone

	<b>Our case</b>	Metastatic tumors in jaw bone
Gender	Male	M:F $\approx$ 1:3
Age	61	40-60
Site	Mandible (premolar-molar region)	Md:Mx=7:1 (Premolar-molar)
Radiography	Ill-defined RL with ragged, irregular border	Ill-defined RL with ragged, irregular border
	Denied tumor history	Wide variety of symptoms

# Tentative Diagnosis

- Central SCC, right mandible, cT4aN0M0, Stage IVA



# Treatment course



- 102/11/19
  - First visit to OS department
  - Intrabony incisional biopsy
  - H-P report: SCC, alveolar ridge, lower right, grade 1
- 102/11/29
  - Consult PS department for evaluation of free flap repair
- 102/12/02
  - Arranged CT
- 102/12/04
  - Arranged GA routine examination
  - Schedule Operation on 102/12/16

# Treatment Plan

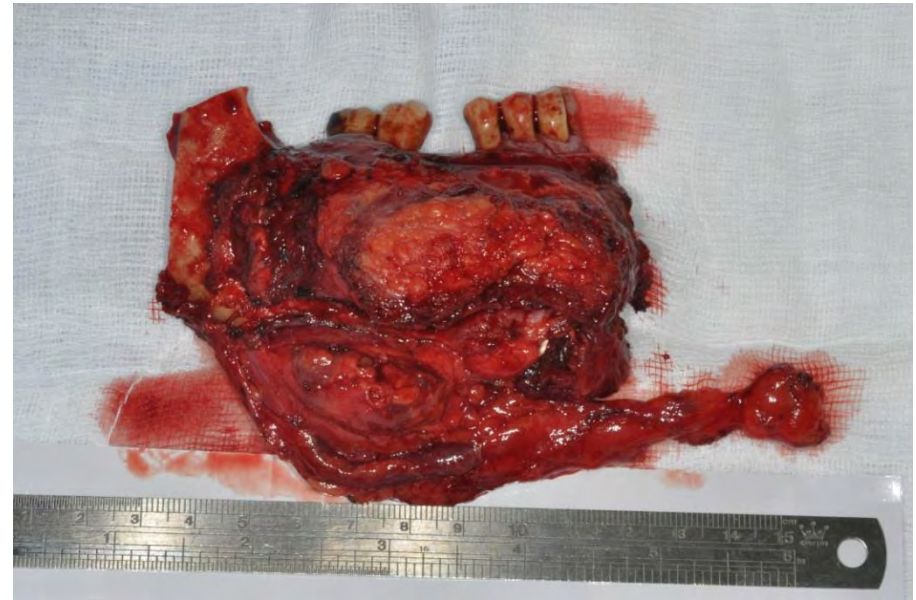


- Wide excision + segmental resection+ R't  
SND + free flap
- CCRT

# Treatment course

Operation 102/12/16

- Routine GA procedures
- WE + segmental resection+ R't SND + free flap



# Treatment course

- Histology report(102/12/16)
- Pathologic diagnosis: Oral cavity, edentulous ridge, lower right, wide excision, squamous cell carcinoma, grade 1 ( pT4pN0cM0, stage IV )

Bone, mandible	right, segmental resection	SCC, grade 1
Lymph node, neck,	SND, right	Reactive hyperplasia ( 0 / 36 )
Salivary gland, submandibular	SND, right	Minimal histological change
Oral cavity, 31遠心牙齦	Excision	Minimal histological changes
Neck 下顎舌骨肌前緣	Excision	Minimal histological



# Discussion I

- INTRABONY DEFECT

# Intrabony lesion



- Epithelial origin → central SCC
- Fibrous origin → Fibrosarcoma
- Bone origin → osteosarcoma
- Lymphatic origin → Central lymphoma
- Metastatic tumor in jaw bone



A decorative graphic at the top of the slide features a row of five circles. The first circle is solid light purple and contains the text 'Central SCC' in pink. The second circle is a light purple outline. The third, fourth, and fifth circles are solid light purple.

# Central SCC

- 30~80 y/o
- Mand. , molars region
- Surface epithelium appeared normal in appearance (before tooth extraction)
- Most often irregular ill-defined radiolucency
- Border shows osseous destruction and varying degree of extension
- Male

# Fibrosarcoma

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- Male : Female = 1:1
- Mean age → 4th decade
- Mandible → Premolar and molars area
- Painful enlarging mass
- Overlying mucosa : normal

# Fibrosarcoma



- Ragged, noncorticated, ill-defined, entirely radiolucency, with little internal structure
- Destruction of inferior border of the jaw and cortices of the neurovascular canal are lost
- Paresthesia
- Periosteal reaction is uncommon
- Usually entirely radiolucency

# Osteosarcoma

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- Typically occur in 4<sup>th</sup> decade
- Mandible, tooth-bearing area
- Swelling, pain, tenderness, ulceration
- Ill-defined radiolucency with little internal structure
- Destruction of the neurovascular canal and inferior border of the mandible
- Male :Female → 2:1
- Lymph node involvement is rare

# Central lymphoma



- Occur in all age groups but is rare in the 1st decade
- Md (posterior area)
- Pain, lymphadenopathy, sensorineural deficits
- Radiolucency with ill-defined border
- Destruction of cortex of the neurovascular canal
- The lesion occurring outside lymph node in head & neck are present in as much as 1/5



# Metastatic tumor in jaw

- Usually situated deep in the bone
- 70% in mandible--Premolar and molars area
- Slight predilection for female (3:1)
- Solitary, poorly defined radiolucency
- Usually erodes rather than expands the adjacent cortical plates
- There was no systemic symptom to suggest a primary tumor elsewhere (although there could be an occult primary tumor)

# Discussion II

Squamous cell carcinoma arising from an  
odontogenic keratocyst: A case report

Farnaz Falaki, Zahra Delavarian, Jahanshah Salehinejad, Shadi  
Saghafi

Med Oral Patol Oral Cir Bucal. 2009 Apr 1;14 (4):E171-4.



# Squamous cell carcinoma

- Arising from the wall of an odontogenic cyst (**p**rimary **i**ntra**o**sseous **c**arcinoma)
- Extremely rare tumor that is limited to the jaws
- More frequently in men, mean age of patients is 57 y/o.



# Primary intraosseous carcinoma

- WHO, classified as an odontogenic carcinoma (1972)
- Definition: solid type carcinomas
  - carcinomas originating from keratocystic odontogenic tumor (OKC),
  - carcinomas arising from odontogenic cysts other than OKCs
- Arise from the lining of an odontogenic cyst or de novo from presumed odontogenic cell rests (ex: reduced enamel epithelium)



- Various odontogenic cysts have been associated with odontogenic SCC:
  - 1<sup>ST</sup>: residual cyst
  - 2<sup>ND</sup>: dentigerous cyst
  - Calcifying odontogenic cyst, and lateral periodontal cyst...
- WHO:
  - Odontogenic keratocyst – a specific odontogenic tumor
  - PIOC derived from it – a specific entity which is different to other PIOC's derived from the odontogenic cysts



# Case Report

# Case Report



## ● Patient

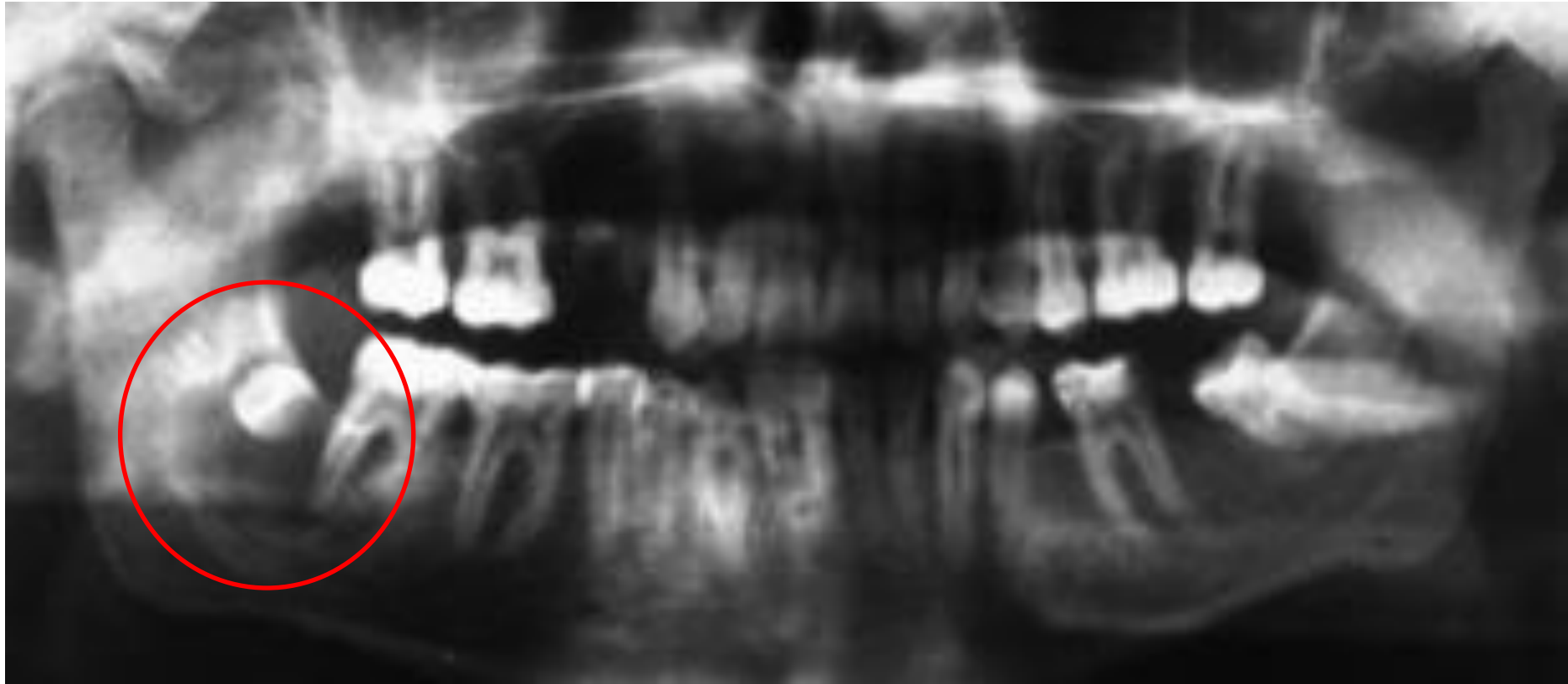
- 20-year-old man
- CC: painful lesion and swelling in the right retro-molar region of the mandible which was first noticed by the patient 25 days earlier with gradual increase in size and occasional bleeding.

# Intra-oral examination

- Painful sessile exophytic lesion with a verrucous surface, approximate size of 2× 3 cm
- Palpation: firm, bleeding was noticed from the posterior gingival sulcus of the 2<sup>nd</sup> molar
- No anaesthesia or paraesthesia in the area
- Lymphadenopathy : (-)



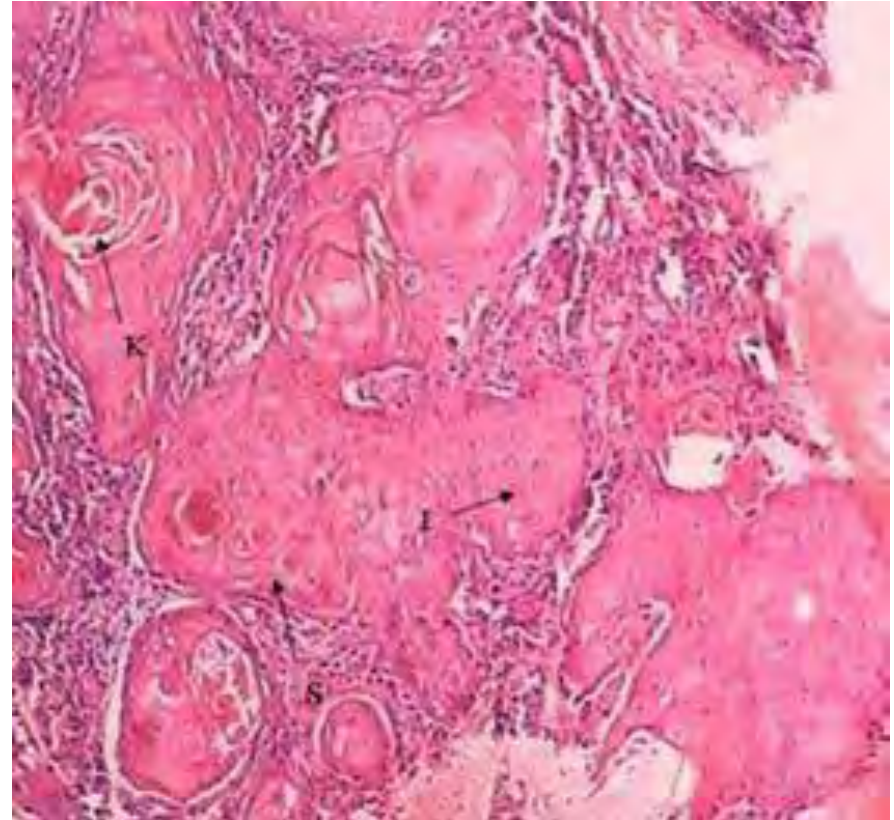
# X-ray finding



- Well-defined unilocular radiolucency around the impacted 3rd molar, and there was no complete radicular development

# Microscopic examination

- Clinical diagnosis: SCC in the wall of an odontogenic cyst
- Incisional biopsy



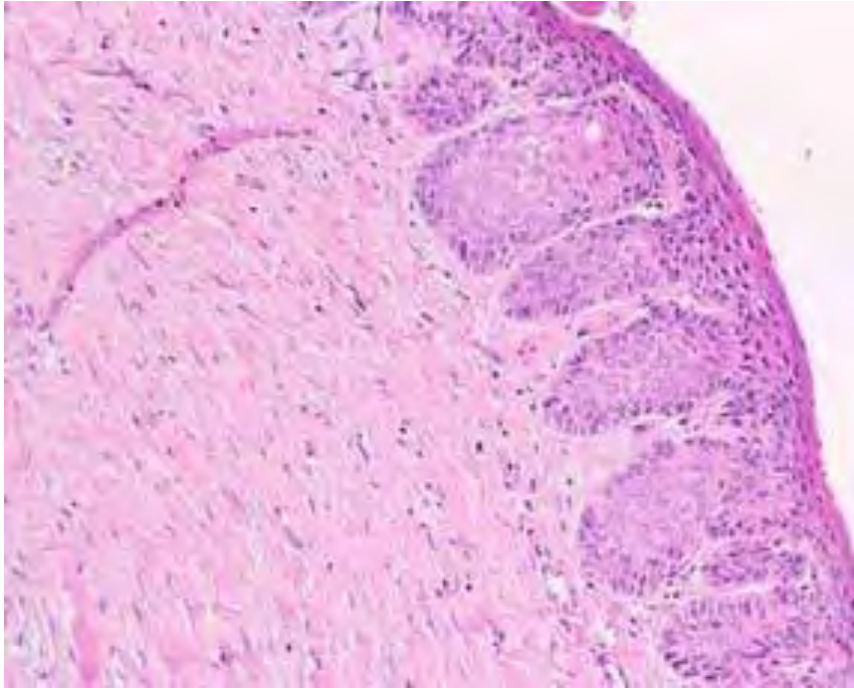
Malignant squamous epithelial islands (S) with keratin pearl formation (K) and individual cell keratinization (I)



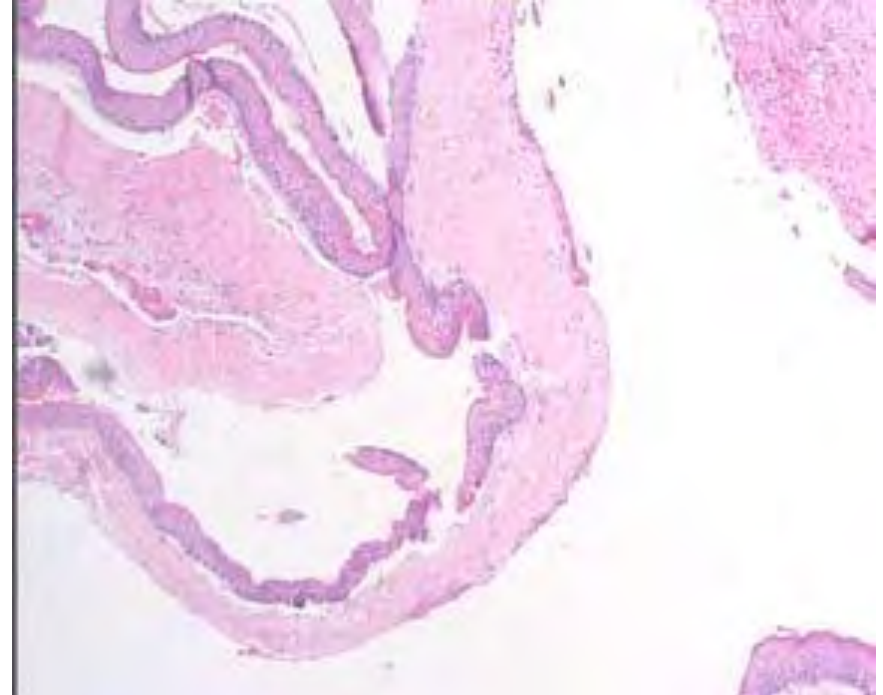
- Chest radiograph and ultrasound examination
- Examination of various organs and the possibility of metastasis was ruled out.
- Surgical resection (radical surgery using the commando approach)
- Surgical specimen reconfirmed initial diagnosis



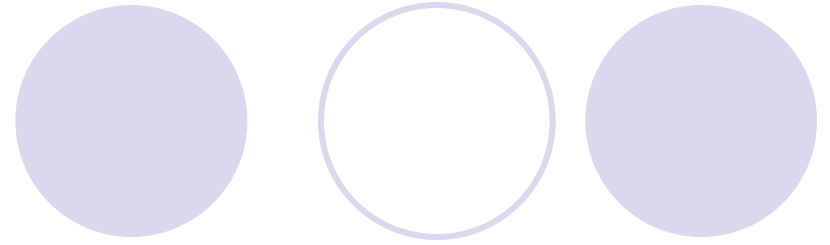
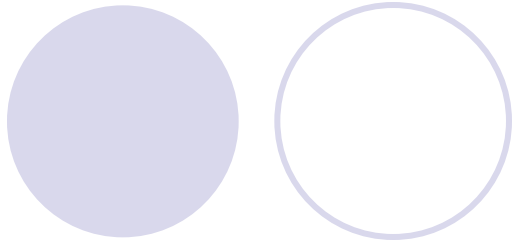
# Histopathologic findings



Microscopic view of the central lesion:  
Dysplastic changes in epithelial lining of the cyst



Another microscopic view of the central lesion:  
An Odontogenic Keratocyst



- P't f/u for 6 months, no sign of recurrence of the lesion in that period.



# DICUSSION

- **Odontogenic carcinoma**

- Extremely rare tumor
- First described by Loos in 1913 as a “Central Epidermoid Carcinoma” of the jaw
- Long-standing chronic inflammation
- Presence of keratinization in cyst lining  
→ Malignant changed

# Odontogenic carcinoma



- Men > women
- Mean age: 57 years
- Mandible > Maxilla
- Most common symptoms
  - Pain and swelling
  - Paresthesia and numbness
  - May be asymptomatic with lesion on panorex

# Odontogenic carcinoma



- Radiographically

- A unilocular or multilocular lesion with well-defined or ill-defined border RL
- Malignant changes
  - The radiolucent area has jagged or irregular margins with indentations and indistinct borders

- Histopathologic

- Consistent with diagnosis of SCC
- Represent well differentiated keratinizing carcinoma

# Odontogenic carcinoma



- **Three possible mechanism:**

- 1) Pre-existing cyst become secondarily involved in a carcinoma of unrelated origin arising from adjacent epithelial structure or distant primary tumor
- 2) The lesion is a carcinoma from the outset, a part of which has undergone cystic transformation
- 3) The initial lesion is cyst, malignant changes taken place in the epithelial lining

# Odontogenic carcinoma



- PIOC must be considered in the differential diagnosis of malignant tumors of odontogenic epithelium
  - Ameloblastic carcinoma, intraosseous mucoepidermoid carcinoma, clear cell odontogenic carcinoma, malignant variant of CEOT.
  - Metastatic SCC must be ruled out



# Odontogenic carcinoma

- Treatment
  - Surgery and/or radiation therapy
- Prognosis is poor
- Metastasis to cervical lymph nodes is observed in up to 50% of cases
- Two year survival rate of patients has been reported in 53%



# Odontogenic carcinoma



- In this case PIOC occurred in 20 yr patient is unusual for SCC
  - Young age of the patient
  - Lesion perforated the cortex of the bone and appeared in the oral cavity, which has not been reported in the literature yet
- It was possible that two different co-existing lesions,
  - An overlying mucosal scc and an odontogenic keratocystic merged together with time, but SCC in a 20-year-old healthy person is not probable
  - Malignant histopathologic changes observed in the wall of the cyst confirmed diagnosis of odontogenic SCC.

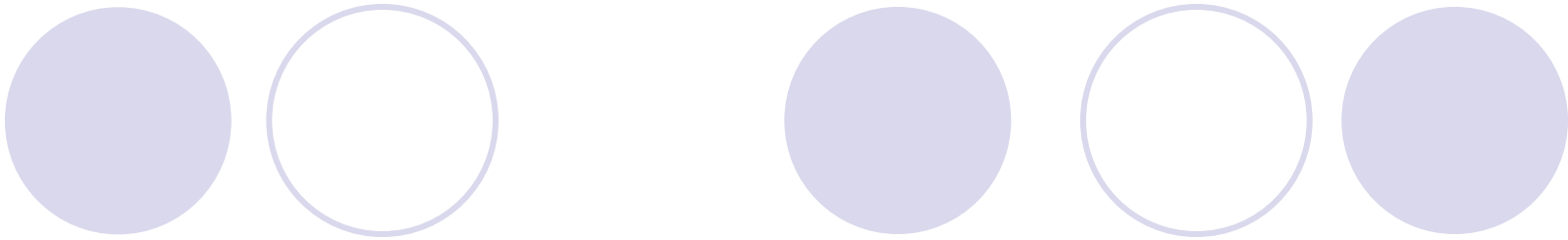


# Summary

- The importance of careful examination and regular follow up of patients with impacted teeth.
- Careful histopathological examination of apparently innocuous odontogenic cysts for the possibility of carcinomatous changes in their epithelial lining

The title '醫學倫理討論' is centered in the upper half of the page. It is surrounded by six circles of varying shades of light purple. The top row consists of three overlapping circles: the leftmost is a thin outline, the middle is solid, and the rightmost is solid. The bottom row consists of three overlapping circles: the leftmost is solid, the middle is solid, and the rightmost is a thin outline. The text is positioned over the top row of circles.

# 醫學倫理討論

- 
- 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)

# Tom Beauchamp & James Childress

## 六大原則- 1979

- 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)：醫師對其病人有「以誠信相對待」的義務。
- 自主原則(Autonomy)：病患對其己身之診療決定的自主權必須得到醫師的尊重
- 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。

# 1. 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

# 臨床案例

- 對病患的生活品質有所幫助？（雖然移除病灶，但造成顏面損傷及失去咬合功能）
- 做手術是否有減輕病人的疼痛？或是使病人更不舒服？
- 手術的介入時機是否恰當？

## 2. 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？



### 3. 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

# 臨床案例

- 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？
- 在做手術以前，是否有說明完整之後再請病人自主的簽名同意？

## 4. 不傷害原則(Non-maleficence)

- 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

# 臨床案例

- 手術過程中，是否有造成不必要醫源性的傷害？
- 若詳實的說明治療計畫，並讓病人對於治療計畫沒有疑問，使心理壓力不那麼大，其實也可以算是一種不傷害原則

## 5. 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



# 臨床案例

- 對於病患病情的保密，已及他的資料是否會被使用來研究用途是否有告知(是否要提前告知病患, 資料會做研究之用)

## 6. 公義原則(Justice)

- 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



# 臨床案例

- ◎ 術前術後照護有無不足之處？
- ◎ 住院時間是否太短？太長？
- ◎ 藥物使用的必要性？



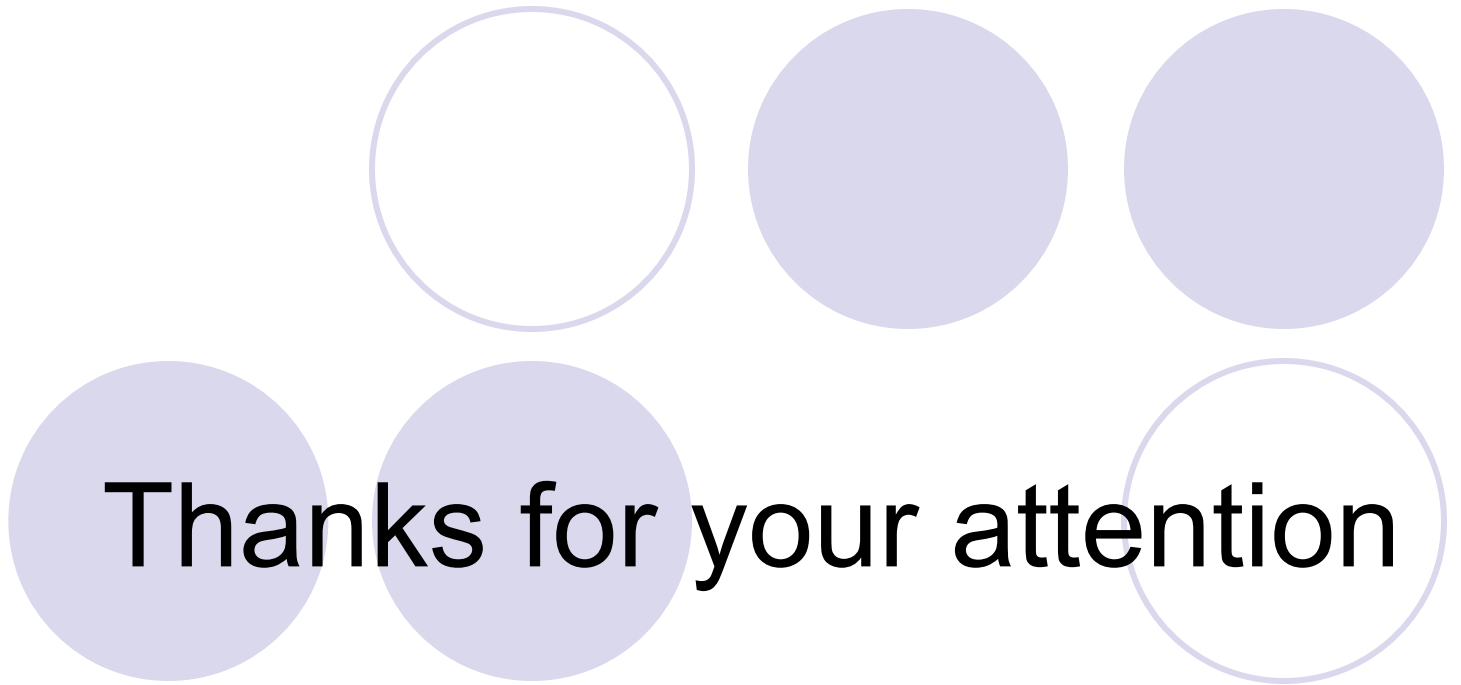
# 醫學倫理總結

- 在病例方面(病灶描述, 治療計畫, 病人態度)應書寫詳盡, 使治療過程有詳實的記錄及治療順利
- 在進行治療之前, 須說明病情、治療計畫及風險
- 應在不違反醫學倫理的原則之下進行治療的行為



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**Thanks for your attention**