

# Clinicopathological Conference II

指導老師：王文岑醫師

報告日期：2009.11.13

第二組：

陳柏睿 曾千芸 張瑞云 陳盈文 許湘敏  
陳元培 蔡欣慈 楊子萱 王少君 陳怡璇

# General Data

- Name: 000
- Chart No: case 2
- Sex: 女
- Age: 33 y/o
- Marital status: 已婚
- Occupation: 家管

<b>General data</b>
Chief complaint
Present illness
Extraoral examination
Intraoral examination
Past medical history
Past dental history
Personal habits

# Chief Complaint

- A swelling mass over lower left gum for more than one year.



General data
<b>Chief complaint</b>
Present illness
Extraoral examination
Intraoral examination
Past medical history
Past dental history
Personal habits

# Present Illness

- This 33 y/o female suffered from swelling and numbness mass over lower left gingiva for more than one year.
- She had been to a LDC for help.
- After x-ray exam, she was returned to our OPD for further evaluation and treatment.

General data
Chief complaint
<b>Present illness</b>
Extraoral examination
Intraoral examination
Past medical history
Past dental history
Personal habits

# Extraoral Examination

- Facial asymmetry



General data
Chief complaint
Present illness
<b>Extraoral examination</b>
Intraoral examination
Past medical history
Past dental history
Personal habits

# Intraoral Examination

- A firm, painless swelling mass is dome-shaped over lower left gingiva from tooth 42 to tooth 36 about 6x3 cm in diameter with smooth surface, pink color.
- Numbness of lower left gingiva.

General data
Chief complaint
Present illness
Extraoral examination



# Intraoral Examination

- Food impaction
- Plaque or calculus deposition
- Numbness of lower left gingival
- Anterior crowding
- 14X16 C & B, 12 crown, 21 22 crown ,  
33 34XX37 C & B, 46X48 C & B
- Missing teeth: 15,28,35,36,47



# Past Medical History

- Denied OP/ hospitalization history
- Denied any allergies
- Denied any systemic disease

General data
Chief complaint
Present illness
Extraoral examination
Intraoral examination
<b>Past medical history</b>
Past dental history
Personal habits



# Past Dental History

- Prosthesis :  
14X16 C & B , 12 crown,  
21 22 crown , 33 34 XX37 C & B,  
46X48 C & B
- OD : 44 occlusal amalgam filling

General data
Chief complaint
Present illness
Extraoral examination
Intraoral examination
Past medical history
<b>Past dental history</b>
Personal habits

# Personal Habits

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

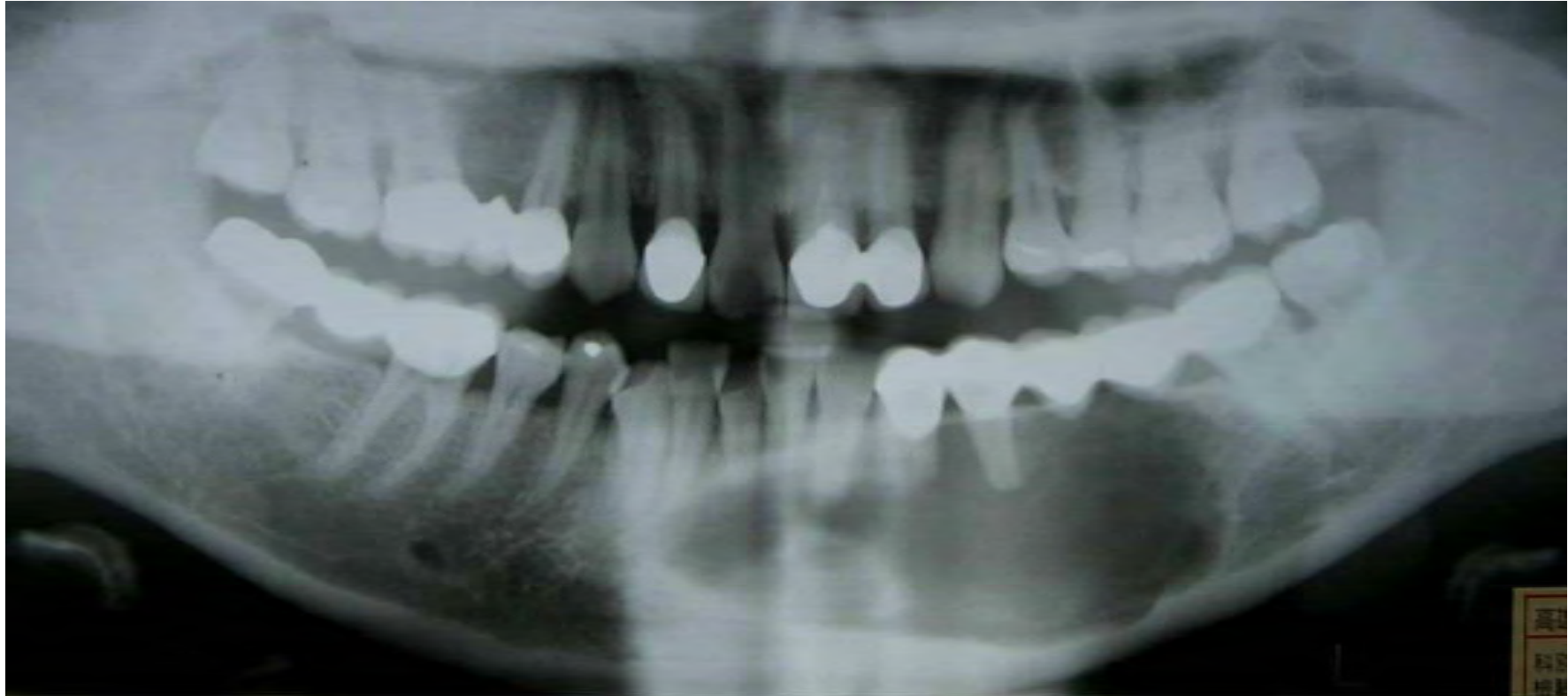
General data
Chief complaint
Present illness
Extraoral examination
Intraoral examination
Past medical history
Past dental history
<b>Personal habits</b>

# Radiographic Examination



There is a well-defined unilocular(pseudolocular) ovoid shaped radiolucency with a corticated margin over mandible extending from mesial aspect of tooth 43 to the mesial aspect of tooth 37 and from cervical junction of tooth 35 down to the mandibular inferior border about 3.5 cm , measuring approximately 6.5 x

# Radiographic Examination



Root resorption and loss of lamina dura of tooth 31, 32, 33, 34, and slightly bone expansion over 34 35 36 area, suspect the lesion induced. The adjacent mandibular canal was inferiorly displaced.

# Radiographic Examination



Dental findings :

missing tooth: 15, 28, 35, 36, 47

restoration (e.g. C & B): crown :12, 21, 22

bridge: 14X16, 33 34XX37, 46X48

# Radiographic Examination



Dental findings :

filling (e.g. amalgam):44 amalgam filling

others: lower anterior teeth crowding



# Differential diagnosis

# Inflammation, neoplasm or cyst ?

- Redness(-)
- Swelling(+)
  - gingiva swelling with intact epithelium
- Purulent drainage(-)
- Fever or local heat(-)
- Pain(-)
- Tenderness(-)



# Inflammation, neoplasm or cyst ?

- Lymphadenopathy(-)
- Fluctuation(-)
- Induration(-)
- Consistency : firm
- well-defined unilocular radiolucency with corticated margin

→ **Neoplasm or Cyst**

# Benign or malignant?

- Pain(-)
  - Tenderness(-)
  - Ulceration(-)
  - Induration(-)
  - Smooth surface(+)
  - Long duration(+) – more than one year
  - Mobility(-) – fixed
  - Numbness over lower left gingiva
  - well-defined unilocular radiolucency with corticated margin
- Benign

## peripheral or intrabony origin?

- Mucosal lesion(-)
- Bony destruction(+)
- well-defined unilocular radiolucency with corticated margin

→ **intrabony origin**

→ **Intrabony benign neoplasm or cyst**



# Working Diagnosis

- Glandular odontogenic cyst
- Central giant cell granuloma
- Unicystic ameloblastoma
- Odontogenic keratocyst
- Central odontogenic fibroma



## Glandular odontogenic cyst

- Rare developmental odontogenic cyst that can show aggressive behavior.
- Classified as a new developmental odontogenic cyst by the WHO in 1992.
- Histopathologically, GOC is lined by epithelium of varying thickness, which contains mucous cells and vacuolations.

## Glandular odontogenic cyst

	This case	Glandular odontogenic cyst
Age	33	Middle age
Gender	female	M>F
Site	tooth 43-37	anterior mandible often cross the midline
size	6.5x3.5 cm	Small<1cm Large may involve most of jaw
Risk factor		
Alcohol Betel nut Cigarette	Alcohol : (-) Betel nut : (-) Cigarette : (-)	/
Duration	> 1 year	Slow growing

## Glandular odontogenic cyst

	This case	Glandular odontogenic cyst
Color	Pink	Bluish purple
Shape	dome(sessile)	dome(sessile)
Surface	Smooth	Smooth
Consistency	firm	fluctuation
Pain	(-)	(-)
Numbness	(+)	(+)
Induration	(-)	(-)
Ulcer	(-)	(-)

# Glandular odontogenic cyst

x-ray findings	This case	Glandular odontogenic cyst
Radiodensity	Radiolucency	Radiolucency
shape	Unilocular/oval (pseudolocular/有septa)	Unilocular or multilocular
outline	Well-defined with corticated margin	Well-defined with sclerotic margin
Effects on surrounding structure	Slightly bony expansion/ root resorption	with expansion and perforation /Root resorption was reported in 22%
	loss of lamina dura	Tooth displaced(37%) and loss of lamina dura(24%)





# Central giant cell granuloma(CGCG)

- Considered as nonneoplastic lesion, but some may demonstrate aggressive behavior similar to neoplasm
- Aggressive type
  - Nonaggressive type

# Central giant cell granuloma

	This case	CGCG
Age	33	20-40 year old/ 60% under 30
Gender	female	F:M = 2:1
Site	tooth 43-37	70% in mandible common in anterior portion often cross the midline
Size	6.5x3.5cm	from tiny 5x5 mm to greater than 10 cm
Risk factor	Alcohol : (-) Betel nut : (-) Cigarette : (-)	Unknown reactive lesion to some stimuli usually
Alcohol		
Betel nut		
Cigarette		
Duration	> 1 year	rapid growing

# Central giant cell granuloma

	This case	CGCG
Color	Pink	bluish-purple
Shape	dome(sessile)	dome(sessile)
Surface	smooth	smooth
Consistency	firm	firm
Pain	(-)	(+) nonaggressive(-)
numbness	(+)	(+)
Induration	(-)	(-)
Ulcer	(-)	(-)

# Central giant cell granuloma

x-ray findings	This case	CGCG
Radiodensity	Radiolucency	Radiolucency
shape	Unilocular/oval (pseudolocular/有septa)	71% Unilocular/ multilocular with wispy septa
outline	Well-defined with corticated margin	Well-defined with noncorticated margin
Effects on surrounding structure	loss of lamina dura Root resorption/ Slightly bony expansion	usually destroys the lamina dura / destroys the lamina dura and causes irregular roots resorption/ bony expansion and causes thinning of cortical boundaries

# Ameloblastoma

- Common clinically significant odontogenic tumor
- Slow-growing locally invasive tumors that run a benign course on most cases

## Unicystic ameloblastoma (UA)

- UA may originate de novo or result in neoplastic change of dental epithelium
- UA accounts of 10~15 % of ameloblastoma
- Dentigerous type & non-dentigerous type

# Unicystic ameloblastoma

	This case	Unicystic ameloblastoma
Age	33	Young age/ 50% of second decades(mean 23y/o) (Non-dentigerous type: 35.2 y/o)
Gender	Female	Non-dentigerous - male: female = 1: 1.8
Site	tooth 43-37	90% in mandible Non-dentigerous type:premolar
size	6.5x3.5 cm	Mean dimension: 2.5~6.3 cm
Risk factor	Alcohol : (-) Betel nut : (-) Cigarette : (-)	/
Alcohol		
Betel nut		
Cigarette		

# Unicycstic ameloblastoma

	This case	Unicycstic ameloblastoma
Duration	> 1 year	Slow growing
Color	Pink	The same of normal tissue
Shape	dome(sessile)	dome
Surface	smooth	smooth
Consistency	firm	firm
Pain	(-)	(-)
Numbness	(+)	(-)
Induration	(-)	(-)
Ulcer	(-)	(-)

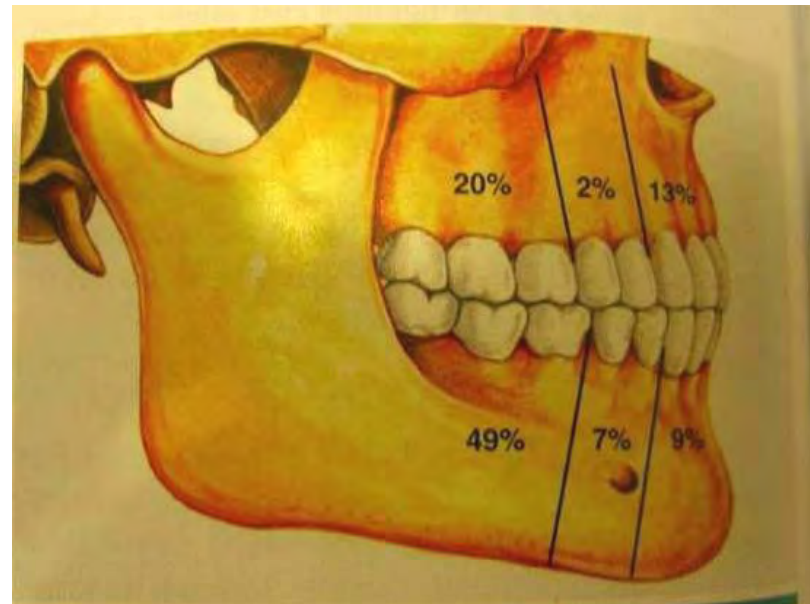
# Unicystic ameloblastoma

x-ray findings	This case	Unicystic ameloblastoma
Radiodensity	Radiolucency	Radiolucency
shape	Unilocular/oval (pseudolocular/with septa)	unilocular
outline	Well-defined with corticated margin	well circumscribed R/L with corticated margin
Effects on surrounding structure	Slightly bone expansion/ Root resorption / loss of lamina dura	root resorption/ cortical expansion/ PDL widening with loss of lamina dura teeth loosening



# Odontogenic keratocyst (OKC)

- Regarded as benign cystic neoplasms rather cyst
- Arises from cell rest of the dental lamina



# Odontogenic keratocyst

	This case	OKC
Age	33	infancy to old age /60% in 10~40 y/o
Gender	female	slight male predilection
Site	tooth 43-37	60~80% in mandible/ including posterior body and ascending ramus
size	6.5x3.5 cm	/
Risk factor	Alcohol : (-) Betel nut : (-) Cigarette : (-)	/
Alcohol Betel nut Cigarette		
Duration	> 1 year	/

# Odontogenic keratocyst

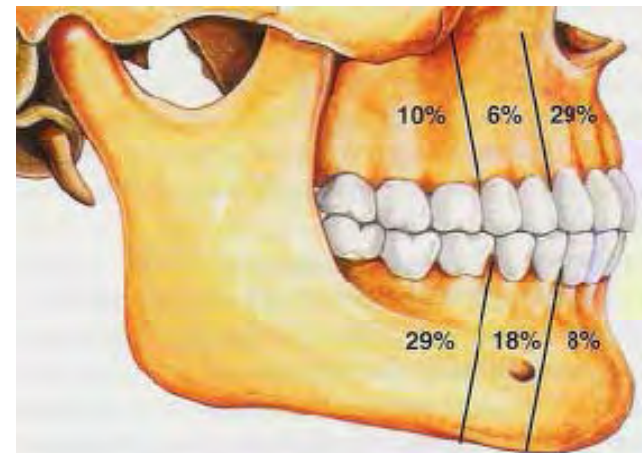
	This case	OKC
Color	Pink	/
Shape	dome(sessile)	/
Surface	smooth	Smooth
Consistency	firm	/
Pain	(-)	small lesions: asymptomatic
		large lesions : pain(+), swelling(+)
Numbness	(+)	/
Induration	(-)	(-)
Ulcer	(-)	(-)

# Odontogenic keratocyst

x-ray findings	This case	OKC
Radiodensity	Radiolucency	Radiolucency
shape	Unilocular/oval (pseudolocular/有septa)	Unilocular large lesion maybe multilocular
outline	Well-defined with corticated margin	Well-defined with corticated margin
Effects on surrounding structure	Root resorption	maybe root resorption
	Slightly bone expansion/ anterior teeth crowding/ loss of lamina dura	no bone expansion / 25~40% of unerupted tooth

# Central odontogenic fibroma

- Most associated with crown of unerupted tooth
- A rare, benign, unencapsulated, odontogenic tumor of jaw
- characterized by islands of odontogenic epithelium within fibrous connective tissue and sometimes by calcifications



# Central odontogenic fibroma

	This case	COF
Age	33	4-80 year old/ (mean age 40)
Gender	female	F:M = 2.2:1
Site	tooth 43-37	55% at mandible, most at posterior region
size	6.5x3.5 cm	/
Risk factor	Alcohol : (-) Betel nut : (-) Cigarette : (-)	/
Alcohol Betel nut Cigarette		
Duration	> 1 year	/

# Central odontogenic fibroma

	This case	COF
Color	Pink	/
Shape	dome(sessile)	/
Surface	Smooth	Smooth
Consistency	firm	firm
Pain	(-)	(-)
Numbness	(+)	(-)
Induration	(-)	(-)
Ulcer	(-)	(-)

# Central odontogenic fibroma

x-ray findings	This case	COF
Radiodensity	Radiolucency	Radiolucency
shape	Unilocular/oval (pseudolocular/有septa)	Small lesions : unilocular, Large lesions : multilocular
outline	Well-defined with corticated margin	Well-defined with Sclerotic border
Effects on surrounding structure	Slightly bony expansion/ irregular root resorption	localized bony expansion/ root resorption / loosening of teeth/ tooth displacement
	loss of lamina dura	associated with an erupted tooth/ tooth divergence





# Clinical Impression

**Glandular odontogenic cyst,  
left mandible**

# Reference

- Kahn, Michael A. Basic Oral and Maxillofacial Pathology. Volume 1. 2001.
- [http://mercksource.org/pp/us/cns/cns\\_hl\\_dorlands\\_split.jsp?pg=/ppdocs/us/common/dorlands/dorland/nine/14239267.htm](http://mercksource.org/pp/us/cns/cns_hl_dorlands_split.jsp?pg=/ppdocs/us/common/dorlands/dorland/nine/14239267.htm)
- <http://www.jomfp.in/article.asp?issn=0973-029X;year=2007;volume=11;issue=2;spage=73;epage=75;aulast=Khandekar>
- Zhang ZH, Lu YC, Meng QF, Wu PH. CT diagnosis of various subtypes of ameloblastoma in the maxillomandibular region. Ai Zheng. 2006 Oct;25(10):1266-70.
- MOHAMMAD YUNUS, BDS, MDS, NAHIDULLAH BAIG, BDS, MCPS, ANWAR UL HAQUE, MBBS, Diplomate American Board of Pathology, FCAP, ADNAN ASLAM, BDS, SUNDAS ATIQUE, BDS, SOBIA BOSTAN, BDS, ADNAN MEHDI SYED, BDS. UNICYSTIC AMELOBLASTOMA: A DISTINCT CLINICOPATHOLOGIC ENTITY. Pakistan Oral & Dental Journal Vol 29, No. 1, (June 2009)
- Radiological features of glandular odontogenic cyst . R Manor, Y Anavi, I Kaplan and S Calderon, Received 4 July 2002; revised 4 March 2003; accepted 19 March 2003
- The Glandular Odontogenic Cyst: Clinicopathologic Features and Treatment of 14 Cases [Xia-Nan Qin](#), [Jin-Rong Li](#), [Xin-Ming Chen](#), [Xing Long](#), (May 2005)



**Thank you for your attention!**