

Case report

報告者：Intern F 劉上榮 胡瑋凡 鍾瑞哲 楊蓉

指導醫師：陳玉昆主任 林立民教授 暨口腔病理科全體醫師

2016/1/26

General Data

- Name : [REDACTED]
- Sex : M
- Age : 46 y/o
- Native : 高雄
- Attending surgeon: [REDACTED] 醫師
- First visit : 104/12/10

104/12/10

Chief Complaint

- Asking for evaluating of r't mandibular lesion



104/12/10

Present Illness

This 46 y/o male patient was referred from LDC for evaluation of a large cystic-like lesion extending from lower right third molar to lower right second premolar mesial root area.

OMF Examination

- MMO: 48 mm
- Site: right buccal vestibule
- Size: Not identified
- Shape: Not identified
- Color : red to pink
- Bone expansion (+)
- Surface: smooth
- Mobility: fixed
- Induration : (-)
- Consistency : hard
- Fluctuation : (-)
- Skin adhesion: Not identified
- LAP: Not identified



104/12/10

Past History

- **Past Medical History**
 - Systemic disease : denied all
 - Hospitalization : (-)
 - Surgery under GA : (-)
 - Allergy : (-)
- **Attitude to dental treatment: co-operative**

Personal History

- Risk factor related to malignancy
 - Cigarette : (-)
 - Alcohol : (+)聚餐才喝
 - Betal : (-)
 - Denied any other dental oral hobbies

Panorex film(104/12/10)



104/12/10

Main X-ray finding



There is a well-defined **multilocular scalloped** shaped **circumcoronal** radiolucence with a smooth and thin corticated margin over the submerged well-developed tooth 48 extending from right retromolar area down to mandibular body and from root of tooth 44 to half of right ramus area, measuring approximately 5x4 cm in diameter. Root resorption of tooth 45,46,47 was noted. Right mandibular canal cannot be identified with the lesion. Thinning of right lower cortical border as well as external oblique ridge is noted.

Inflammation?
Cyst or neoplasm?
Benign or malignant?

Working diagnosis

Inflammation, cyst, or neoplasm

?

	Our case	Inflammation	Cyst	Neoplasm
Color	Normal	Red	Normal	Variable
Fever	-	+	-	-
Consistency	Hard	Rubbery	Intrabony: hard Peripheral: Soft	Variable
Shape	Irregular	Irregular	Regular	Irregular
Discharge	-	+	-	+/-
Pain	-	+	-	+/-
Ulceration	-	-	-	+/-
Mobility	Fixed	Fixed	Intrabony: fixed Peripheral : Fluctuation	Fixed
Duration	???	Days	Years	Months

Benign or Malignant ?

	Our case	Benign	Malignant
Border	Clear	Clear	Unclear
Surface	Smooth	Smooth	Rough, smooth
Ulceration	-	-	+/-
Induration	-	-	+
Pain	-	-	+/-
Metastasis	-	-	+/-
Mobility	Fixed	Movable/fixed	Fixed
Duration	???	Years/Months	Months

Intrabony or peripheral ?

	Our case	Intrabony	Peripheral
Bone expansion	+	+	-
Bony destruction	+	+	-
Consistency	Hard	Hard	Soft, firm, rubbery...

→ Our case is a **intrabony benign cyst or neoplasm**

Working diagnosis

WORKING DIAGNOSIS

- Conventional Ameloblastoma, right mandibular body to anterior ramus
- Unicystic Ameloblastoma, right mandibular body to anterior ramus
- Keratocystic Odontogenic Tumor, right mandibular body to anterior ramus
- Dentigerous cyst, right mandibular body to anterior ramus
- Calcifying cystic Odontogenic Tumor, right mandibular body to anterior ramus
- Calcifying Epithelial Odontogenic tumor, right mandibular body to anterior ramus

Most possible

Least possible



Differential diagnosis

Conventional Ameloblastoma (86%)

	Our case	Conventional Ameloblastoma	
Gender	male	none	V
Age	46 y/o	20~70y/o	V
Site	Mandible molar & premolar area	Mandible molar-ramus area	V
S/S	painless	Usually asymptomatic	V
Size	5X4 cm in diameter	Variable	V
Duration	???	Slow	
Clinical features	Pain(-)	Pain(-)	V
	Root resorption(+)	Root resorption(+)	V
	Mandibular 3 rd molar impacted(+)	3 rd molar impacted(+)	V
	Bone expansion (+)	Bone expansion(+)	V

Unicystic Ameloblastoma (10~15%)

	Our case	Unicystic Ameloblastoma	
Gender	male	none	V
Age	46 y/o	Young (mean 23)	X
Site	Mandible molar & premolar area	Posterior mandible (90%)	V
S/S	painless	Usually asymptomatic	V
Size	5X4 cm in diameter	Variable	V
Duration	???	Slow	
Clinical features	Pain(-)	Pain(-)	V
	Root resorption(+)	Root resorption(+)	V
	Mandibular 3 rd molar impacted(+)	3 rd molar impacted(+)	V
	Bone expansion (+)	Bone expansion(+)	V

Keratocystic Odontogenic Tumor

	Our case	KCOT	
Gender	male	male	V
Age	46 y/o	10~40y/o (60%)	V
Site	Mandible molar- premolar- ramus area	Mandible molar-premolar(56%)	V
S/S	painless	Usually asymptomatic	V
Size	5X4 cm in diameter	Variable	V
Duration	???	Slow	
Clinical features	Pain(-)	Pain(-)	V
	Root resorption(+)	Root resorption(-)	X
	Mandibular 3 rd molar impacted(+)	25%~40% impacted tooth (+)	V
	Bone expansion (+)	No bone expansion	X

Dentigerous cyst

	Our case	Dentigerous cyst	
Gender	male	male	V
Age	46 y/o	10~30y/o	X
Site	Mandible molar & premolar area	Mandibular 3 rd molar	V
S/S	painless	Usually asymptomatic	V
Size	5X4 cm in diameter	Variable(bigger than 3~4cm)	V
Duration	???	Slow	
Clinical features	Pain(-)	Pain(-)	V
	Root resorption(+)	mild	X
	Mandibular 3 rd molar impacted(+)	3 rd molar impacted(+)	V
	Bone expansion (+)	No Bone expansion	X

Calcified Odontogenic Cyst

	Our case	Calcified Odontogenic cyst	
Gender	male	none	V
Age	46 y/o	10~30y/o (mean 30)	X
Site	Mandible molar & premolar area	Anterior area 65% (maxilla:38%, mandible 27%)	X
S/S	painless	Usually asymptomatic	V
Size	5X4 cm in diameter	Variable	
Duration	???	Slow	
Clinical features	Pain(-)	Pain(-)	V
	Root resorption(+)		
	Mandibular 3 rd molar impacted(+)	1/3 with impacted (canine)	V

Calcifying epithelial Odontogenic tumor

	Our case	CEOT	
Gender	male	none	✓
Age	46 y/o	30~50y/o (mean 40)	✓
Site	Mandible molar & premolar area	posterior mandible	✓
S/S	painless	Painless, slow-growing swelling	✓
Size	5X4 cm in diameter	varied	
Duration	???	Slow	
Clinical features	Pain(-)	Pain(-)	✓
	Root resorption(+)	Root resorption(+)	✓
	Mandibular 3 rd molar impacted(+)	Mandibular 3 rd molar Impacted	✓
		Calcification around Impacted tooth	X

Clinical impression

- Conventional Ameloblastoma, right mandibular body to anterior ramus
- Horizontal impaction of tooth 38,48

Treatment course

Treatment course

104/12/10 first visit [REDACTED] 醫師

- Oral cavity not identified
- Panorex film shows two radiolucency shadow
- OP arranged on 105-01-08 for excision and decompression



(104/12/10)

Treatment course

104/12/31

Check Lab data:within normal limit

Panorex film(104/12/10)



104/12/10

EKG(104/12/10)

Diagnosis:

- Sinus Bradycardia
- Non-Specific ST-T change

Chest PA(104/12/10)

報告未出



Treatment Plan

- Enucleation + Decompression (105/01/08)

Pathologic diagnosis

- Calcifying cystic odontogenic tumor (Gorlin's cyst), mandible, tooth 45-47 apical area, excision

Discussion

Calcifying odontogenic cyst ?

Calcifying ghost cell odontogenic cyst?

Keratinizing and calcifying odontogenic cyst ?

Gorlin's cyst?

Odontogenic ghost cell tumor?

Calcifying Cystic Odontogenic Tumor: A Case Report and Review

IJSS Case Reports & Reviews | January 2015 | Vol 1 | Issue 8

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Nomenclature

- 1963 :
Gorlin's cyst by Gorlin
Keratinizing and calcifying odontogenic
cyst(KCOC) by Gold in 1963
- 1992:
Calcifying odontogenic cyst (COC)
by World Health Organization (WHO) in
1992
- a tumor like odontogenic cyst of the jaws
and categorized under benign
odontogenic tumors
→ continued to use the term COC

Table 1: Evolution of nomenclature of CCOT

1962 - Gorlin *et al.* identified the lesion as a distinct pathological entity

1963 - Gold named the lesion as KCOC

1972 - Fejerskov and Krog used the term CGCOT - monistic concept

1975 - Freedman *et al.* introduced the term CCOT - monistic concept

1981 - Praetorius and Ledesma-Montes suggested (COC - cystic type) and (DGCT - neoplastic type) - based on the dualistic concept

1986 - Ellis and Shmookler suggested EOGCT

1990 - Colmenero *et al.* suggested OGCT

1992 - WHO classification - According to Kramer and Pindborg from 1992 and the majority of the authors favored the use of the term COC and described it as a cystic or neoplastic-like odontogenic pathological lesion of the jaw and classified it as a benign odontogenic tumor

1994 - Hirshberg *et al.* Considered COC associated with an odontoma as a separate entity and suggested the name odontocalcifying odontogenic cyst

1998 - Toida named the entity as CGCOC

2005 - The WHO Classification of odontogenic tumors re-named this entity as CCOT, the benign solid type was referred to as DGCT and the cases previously reported as OGCC and malignant EOGOCs were re-named by WHO as GCOC

KCOC: Keratinizing and calcifying odontogenic cyst, CGCOT: Calcifying ghost cell odontogenic tumor, CCOT: Cystic calcifying odontogenic tumor, COC: Calcifying odontogenic cyst, DGCT: Dentinogenic ghost cell tumor, EOGCT: Epithelial odontogenic ghost cell tumor, OGCT: Odontogenic ghost cell tumor, CGCOC: Calcifying ghost cell odontogenic cyst, OGCC: Odontogenic ghost cell carcinoma, GCOC: Ghost cell odontogenic carcinoma

Nomenclature

- Generally considered to be a cyst
 - yet many researchers choose to address it as a neoplasm
 - sub-classify the variants of the lesion into cystic and neoplastic variants
- In 2005, WHO
 - Cystic : **CCOT** (Cystic calcifying odontogenic tumor)
 - Neoplastic : **DGCT** (Dentinogenic ghost cell tumor)

Features

- First to ninth decade
- No gender predilection
- Distribution of site for maxilla and mandible : comparable
- Intrabony or extrabony form

Extrabony CCOTs :

- swelling in the incisor-canine region, up to 4 cm
- mostly asymptomatic
- well-delineated swellings
- smooth surface with a pink to reddish hue
- shallow depression in the bone
- occasionally displacement of adjacent teeth

Features

- **Intrabony CCOTs**
 - unilocular radiolucencies with a well-delineated border
 - most : varying flecks of radiopacity
 - 50% : root resorption along with root divergence
 - <25% : association with an unerupted tooth

Features

- Early stages : little or no mineralization → radiolucency
- Lesion matures : calcifications ,well-circumscribed mixed radiolucent-radiopaque masses
- Radiologically :
 - patterns of radiopacities :
 - 1. salt and -pepper pattern of flecks
 - 2. fluffy cloudlike pattern
 - 3. a “new moon” -like configuration with crescent-shaped radio-
opacity on one side of the radiolucency

Differential Diagnosis

- Early stages (little or no mineralization, radiolucencies)
 1. dentigerous cyst
 2. OKC
 3. ameloblastoma
- Later stages (mixed radiolucent radiopacity)
 1. adenomatoid odontogenic tumor
 2. partially mineralized odontoma
 3. calcifying epithelial odontogenic tumor
 4. ameloblastic fibroodontoma

醫學倫理討論

醫學倫理

- 生命的神聖性(Sanctity of life)
- 六大原則

生命的神聖性(Sanctity of life)

- 起源
- 生命應該是相對的，每個生靈都該是平等的，沒有所謂的低賤與高貴之分，所以彼此是要相互尊重，不可被輕視的。

Tom Beauchamp & James Childress 六大原則 1979

1. 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。
2. 誠信原則(Veracity): 醫師對其病人有「以誠信相對待」的義務。
3. 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。
4. 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。
5. 保密原則(Confidentiality): 醫師對病人的病情負有保密的責任。
6. 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(Beneficence)

Q:

做完治療後，是否可以改善病人的症狀，如果沒有改善，該如何？

A:

1. 在術前要先告知病人目前病情狀況、提供合適的治療計畫、說明術後可能的情形、以及手術成功或失敗的機率
2. 對於處置沒有把握，將病人交付給更專業的醫師
->目的皆是以病人的利益為最大基準

誠信原則(Veracity)

Q: 如何達到病人與醫師相互信任?

A: 首先，我們需要營造讓病人值得信任的安全感，讓病人相信我們是要來解決問題，唯有透過互相信任，不要有隱瞞才能更了解病情，透過說話技巧和溝通方式，來達到雙方互相理解及資訊透明化

自主原則 (Autonomy)

Q: 若病人沒有自己選擇的能力，或是病人與病人家屬之間意見衝突的情況發生時？

A: 要尊重其法定代理人之意願，當意見相左以病人本人為主。

Q: 如何確保醫師不侵犯病人自主的權利？

A: 醫師主要的功能是提供病人“診斷”及“治療”，不包含決定的功能，其中透過教育病人的方式，使其了解病情及治療方式的優缺，並協助病人來選擇如何治療。

不傷害原則 (Nonmaleficence)

Q: 如何減少病人的傷害，降低complication的風險產生？
A:

1. 熟悉病人過去病史，目前病況以及預防未來可能發生惡化情形
2. 在不同治療方式中，提供較低傷害、較少風險的治療方式
3. 要保持在良好狀態下，不因個人因素造成醫源性傷害
4. 不做沒有把握的手術。

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

正義原則(Justice)

Q: 所謂的正義原則包含了?

A:

- ✓公平、應得之賞罰、給予應得之資格
- ✓Gillon提到正義三層次
 1. 分配正義：公平地分配不足之資源
 2. 權利正義：尊重人的權利
 3. 法律正義：尊重道德允許的法律