

原文題目(出處)：	Mandibular Actinomyces osteomyelitis complicating florid cemento-osseous dysplasia: case report. BMC Oral Health 2011, 11:21.
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內文：

I. Background:

- Apart from neoplastic processes, chronic disfiguring and destructive diseases of the mandible are uncommon.

II. Introduction

- Actinomycosis
 - Slowly-progressive infection
 - Gram-positive, anaerobic
 - Inflammation with abscesses, tissue fibrosis, and the presence of draining sinus tracts or fistulae
 - Sulfur granules from erupting sinus tracts
 - Cervicofacial infections
 - Generally limited to the soft tissues without spreading to involve neighboring bone tissue
 - It mimics more common problems such as neoplasia
 - Actinomycetes are sensitive to many common antimicrobials
 - Disfiguring or even fatal, if vital structures(such as major arteries and airways) are involved
- Florid cemento-osseous dysplasia (FCOD)
 - Multiple bilateral and often symmetrically extensive lesions
 - Predominantly in the mandible
 - Middle-aged African females
 - Asymptomatic or dull pain
 - Cotton wool
 - There is a high preponderance of fibrous tissue and osteoclasts but rarely inflammation
 - Possesses a less robust blood supply, thereby resulting in sequestrum

Focal	Periapical	Florid
♀	♀ = ♂ = (14 : 1)	♀
20~60 歲 (平均 38 歲)	30~50 歲 (甚少小於 20 歲)	中年以上
Posterior Mandible	Anterior Mandible 的 根尖周圍	多發性，包括 Anterior Mandible
None	黑人 (70%)	黑人
< 1.5 cm	< 1.0 cm	
無症狀	(1) 無症狀 (2) self-limiting	通常無症狀

III. Case Presentation:

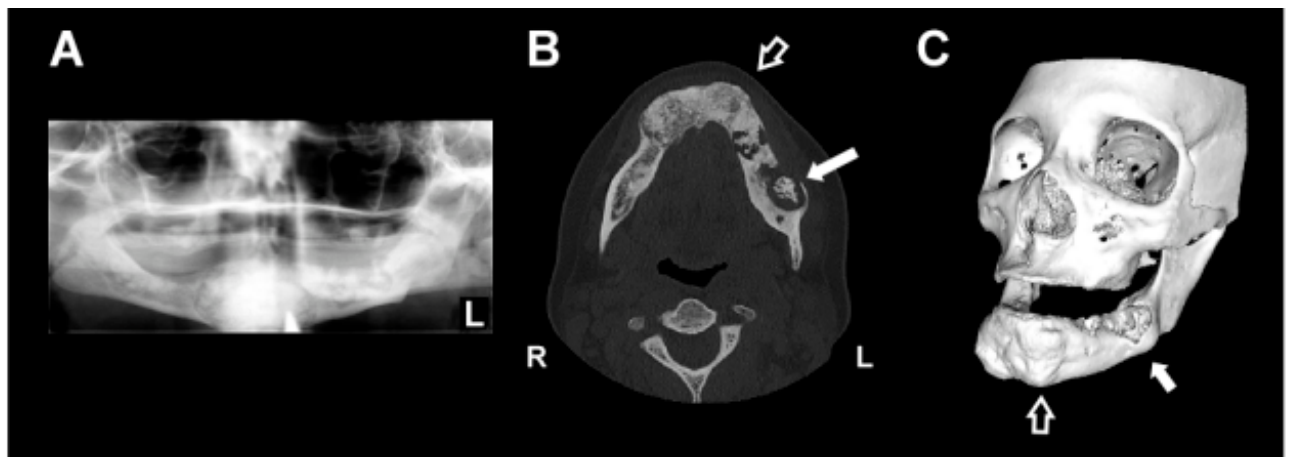
- 五十三歲無牙非洲美裔女性
- FCOD病史二十年
- 假牙製作十年，假牙穩定性差
- 左下顎骨腫一個月，疼痛，在 ramus 前方暴露出約一公分的骨頭
- Pus(+):白色濃稠有臭味
- Multifocal diffuse bony changes consistent with FCOD and a new radiolucency in the bone of the mandible

- 就醫治療
 - 第二週:levofloxacin無效
 - 第二個月:切片但無確診
 - 第七個月:症狀未消(The ulceration and drainage continued)轉診至 University of Michigan Medical hospital
 1. Debridment
 2. 細菌培養
 3. 骨切片
 4. 翻瓣修復軟組織

Table 1 Bacteria cultured from mandibular biopsy

Aerobic bacteria	Anaerobic bacteria
Coagulase-negative <i>Staphylococcus</i>	Numerous <i>Actinomyces</i> spp. <i>Lactobacillus</i> spp. α -hemolytic <i>Streptococcus</i> <i>Leptotrichia buccalis</i> <i>Capnocytophaga</i> spp. <i>Prevotella</i> spp.

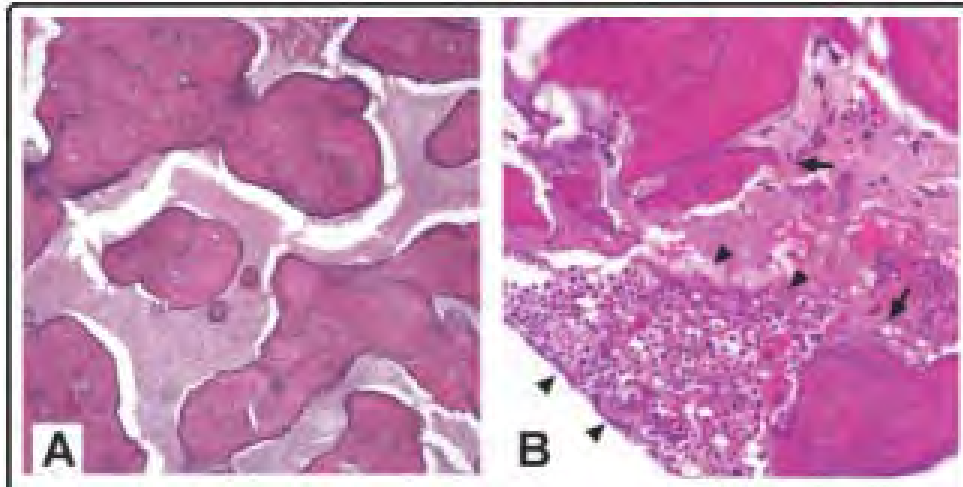
- A:Pano顯示cotton wool影像，四個象限均有，但在上顎比較不明顯
- B圖:Axial CT
 - 空心箭頭: hypertrophic, sclerotic and heterogeneous changes of FCOD within the mandible
 - 實心箭頭: a large lytic lesion with loss of bone at its lateral aspect and central sclerosis consistent with infection
- C圖:3D CT
 - 空心箭頭對應圖A
 - 實心箭頭顯示因為Actinomyces感染而造成的局部糜爛
- 組織切片
 - A: Excised mandibular bone revealed FCOD with irregular cementum



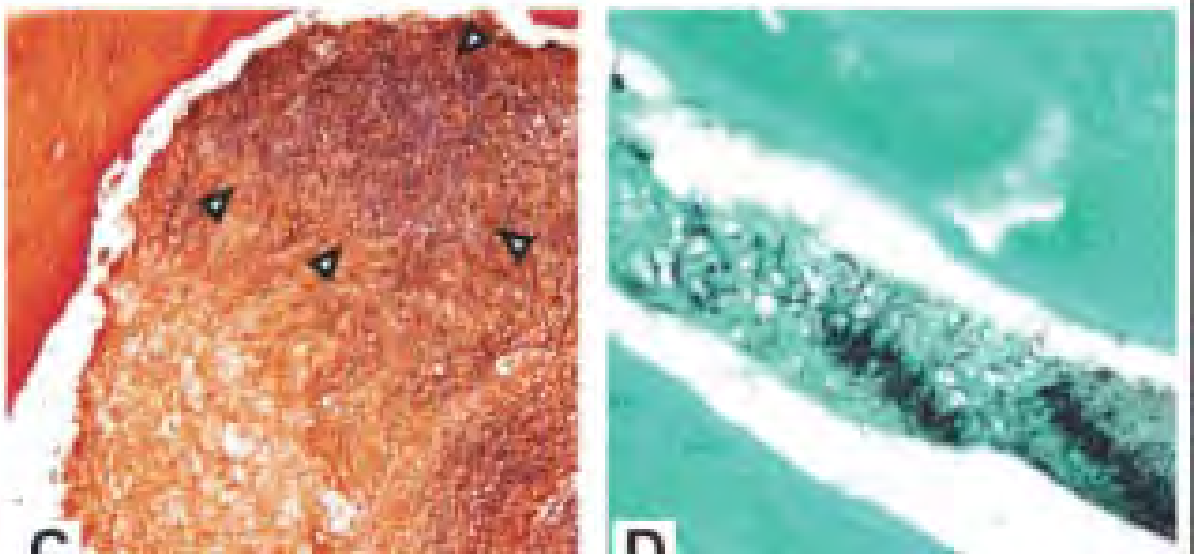
droplets and rounded forms in a fibrovascular stroma (hematoxylin and

eosin (H&E), magnification 200 ×)

- B: Neutrophilic infiltrate (arrowheads) with adjacent necrotic bone (arrows) (H&E, magnification 400 ×).




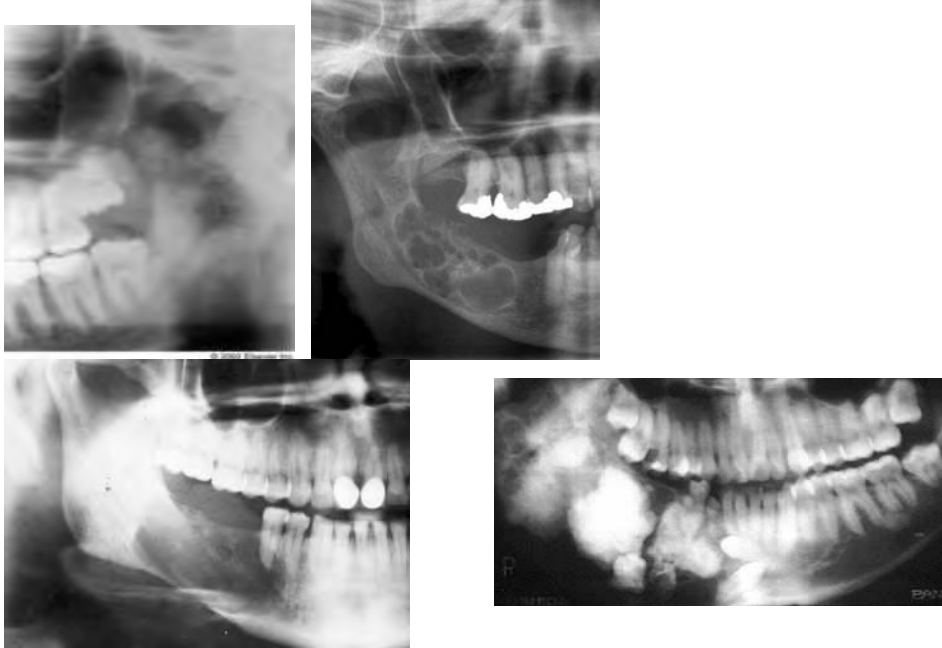
- C: Gram-positive filamentous organisms in marrow space (arrowheads) (Brown-Hopps stain).
- Colonies of filamentous organisms in marrow



IV. Conclusions

- We present a complicated association of two uncommon and destructive diseases of bone, FCOD and actinomycosis.
- The existing FCOD possibly contributed to a delay in establishing the diagnosis of actinomycosis because the deforming and destructive changes to the mandible produced by the infection were assumed to be due to progressing FCOD.
- Healthcare providers should be aware that actinomycosis can be an opportunistic pathogen of the mandible that can establish deforming and severe infections when a break in the integrity of the oral mucosa occurs.
- Proper cultures performed under anaerobic conditions are helpful and antimicrobial management should take into consideration.

- Clinicians should be aware of the possibility of actinomycosis arising in the setting of FCOD, and the importance of bone biopsy and cultures in arriving at a definitive and timely diagnosis.

題號	題目
1	<p>放射學檢查與繁盛性牙骨質-骨發育不良 (florid cemento-osseous dysplasia) 較不易區分的疾病為下列何者？</p>  <p>(A) 骨肉瘤 (osteogenic sarcoma) (B) 造釉細胞瘤 (ameloblastoma) (C) 纖維肉瘤 (fibrosarcoma) (D) 家族性巨大型牙骨質瘤 (familial gigantiform cementoma)</p>
答案(D)	<p>出處：參考98年第一次專門職業及技術人員高等考試牙醫師、助產師、職能治療師、呼吸治療師、獸醫師考試暨牙醫師考試分試考試(第一試):當年題目為組織學檢查</p> 
題號	題目
2	<p>關於放線菌(actinomycetes)，下列何者為誤</p> <p>(A) 是一種絲狀的格蘭氏陽性(Gram's positive) (B) 好氧(aerobic) 及微嗜氧(micoaerophilic) 菌 (C) 葡萄狀黴菌病 (botryomycosis) 和放線菌((actinomycetes))的膿液中均常見有硫磺顆粒(sulfur granules) (D) 常引發多發性膿瘍和瘻管生成</p>
答案(B)	<p>出處：本文和參考96年第一次專門職業及技術人員高等暨普通考試醫事人員、中醫師、心理師、呼吸治療師、營養師、獸醫人員考試暨醫師考試分試考試(第一試)</p>