原文題目(出處)：	Florid Cementoosseous Dysplasia: A Rare Case Report. Case Rep Dent 2013, Article ID 946583
原文作者姓名：	Mehmet Fatih Fentürk, Recep Kestane, Elif Naz Yakar, Ahmet Keskin
通訊作者學校：	University of Suleyman Demirel, East Campus, 32260 Cunur Isparta, Turkey
報告者姓名(組別)：	陳胤樺 Intern E 組
報告日期：	102/12/9

內文：

一、 Abstract

1. Florid cementoosseous dysplasia (FCOD) is a rare, benign, fibroosseous, and multifocal dysplastic lesion of the jaw that consists of cellular fibrous connective tissue with bone and cementum-like tissue.
2. FCOD is most commonly found in middle-aged black women (it may also occur in Caucasians and Asians), is generally asymptomatic, and is usually detected during radiological examination.
3. FCOD associated with multiple impacted teeth and bone expansion is a very rare phenomenon.

二、 Introduction

1. FCOD was previously known as gigantiform cementoma,multiple cementoossifying fibroma, sclerosing osteitis, multiple enostosis, and sclerotic cemental masses of the jaws.
2. The etiology of FCOD is unknown, and there is no clear explanation for its gender(性別) and racial predilections(種族偏好)
3. Clinically these lesions are often asymptomatic. Symptoms such as dull pain or drainage are almost always associated with exposure of the sclerotic calcified masses in the oral cavity
4. Radiographically, the lesions appear as multiple sclerotic masses located in two or more quadrants, usually in the tooth-bearing regions.They are often confined within the alveolar bone
5. A search of the literature showed that only a few cases have been reported concerning the familial form of FCOD associated with multiple impacted teeth. However, no examples were found of the nonfamilial form of FCOD associated with multiple impacted teeth.
6. In this study, a very rare case of nonfamilial FCOD associated with multiple impacted teeth and bone expansion is presented

三、 Case Presentation

1. A 35-year-old male patient was referred to Ankara University, with severe swelling, notably in the maxilla, no systemic symptoms.
2. Clinical examination:
   a. Expansion of the bone
   b. Partially edentulous areas on both the maxilla and mandible.
   c. Several decayed roots in both jaws
   d. Some of the erupted teeth were malposed(錯位) due to bone expansion.
   e. The overlying gingiva and mucosa were normal with no

FIGURE 1: Preoperative view of the maxilla with bone expansions intraorally.

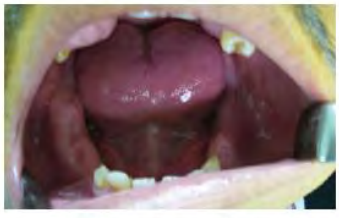

FIGURE 2: Preoperative mandible intraorally.

clinical signs of inflammation

f. Had never experienced pain in any part of his jaws

3. Familial history:
   No familial aspects of the disease could be established.
4. Radiological examination:
   a. Multiple, diffuse, lobular radioopacities throughout the edentulous areas of the maxilla and mandible with multiple impacted teeth.
   b. Most of the impacted teeth seemed to be pushed through the periphery(邊緣) of the jaws by the expansile(擴張性) lesions

FIGURE 3: Preoperative panoramic radiograph showing multiple impacted teeth and bone expansion.

5. Differential diagnosis:
   a. The serum alkaline phosphatase(血清性磷酸酶) level was within normal limits
   b. Scintigraphic bone scan showed no increased osteoblastic activity on the other bony formations
   →Thus, the differential diagnosis of FCOD was made rather than Paget's disease or Gardner's syndrome.

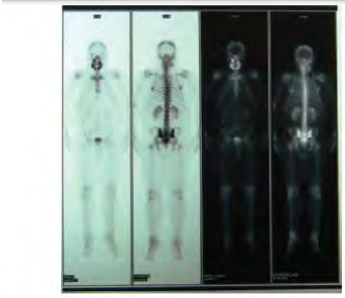

FIGURE 4: Scintigraphic bone scans showing no increased osteoblastic activity on the other bony formations

6. Histopathologically:
   Rounded cement bone-like structures, showing irregular lamellation, were seen in fibrous stroma consisting of fibroblastic cells

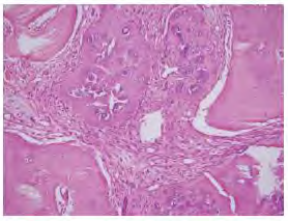

FIGURE 5: Histopathologically rounded cement bone-like structures showing irregular lamellation are seen in fibrous stroma consisting of fibroblastic cells (HEx100).

7. Definitive diagnosis:
   When clinical, radiological, and histopathological findings were evaluated together, the definitive diagnosis was made of FCOD.
8. Operative course:
   a. Cortical bone expansions were recontoured in two operations under local anesthesia.
   b. No impacted teeth were extracted due to their location.
   c. The remaining roots and malposed teeth were extracted, and the removed bony segments were sent for histopathological examination → confirmed the diagnosis of FCOD once again.

FIGURE 6: Bony segments removed from maxilla.

9. Postoperative course:
   a. A partial, removable prosthesis was fabricated 1 month after the surgery.
   b. Care was taken to avoid any trauma as a result of the prosthesis.
   c. Routine controls were performed every 6 months.
   d. The postoperative 1-year course was uneventful(平靜無事的)
   e. The patient has been followed up for 16 months with no complication. Followup is continuing.

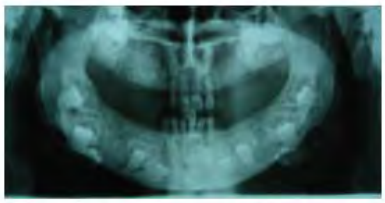

FIGURE 7: Postoperative panoramic radiograph.

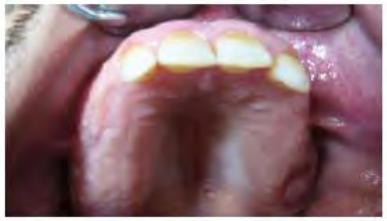

FIGURE 9: Postoperative 1-year view of maxillary arch intraorally.

FIGURE 8: Postoperative 1-year view of occlusion with removable partial prosthesis.

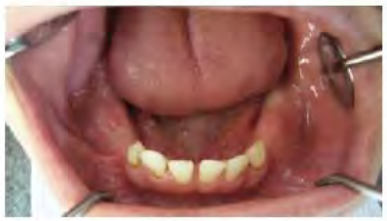

FIGURE 10: Postoperative 1-year view of mandibular arch intraorally.

四、 Discussion-FCOD

1. Characteristic:
   a. Radiolucent-radiopaque periapical and interradicular lesions involving the mandible bilaterally and sometimes the maxilla.
   b. Extended form of periapical cementoosseous dysplasia.
   c. Asymptomatic dysmorphic(畸形) bone-cementum complexes.
2. Radiographs:
   a. Show large, radiolucent, mixed, or most often, dense radiopaque masses
   b. Limited to the periapical alveolar bone. They do not involve the inferior border, except through direct focal(局灶性) extension, and do not occur in the rami(下頜支?).

The present case was a severe form of FCOD, involving all four quadrants, including the angle and the basal bone in some areas of the mandible.

3. Prevalence：
   a. Typically occurs in middle-aged black women
   b. Melrose et al. Study :
      I. 32 black women of 34 cases of similar lesions
      II. Mean age : 42.

The present case of a 35-year-old Turkish man may represent the first of such a rare combination of features being reported in the English and Turkish language literature.

4. Differential diagnosis:
   a. Gardner's syndrome : FCOD has no other skeletal changes, skin tumors, or dental anomalies(異常.畸形).
   b. Paget's disease: polyostotic(多骨型) and shows raised alkaline phosphatase level
   c. Chronic diffuse osteomyelitis : not confined to tooth-bearing areas, It is a primary inflammatory condition of the mandible, with cyclic episodes(週期性發作) of unilateral pain and swelling. The affected lesion of the mandible exhibits a diffuse opacity with poorly defined borders

5. Comparison:
   a. FCODs are most often painless and detected through routine radiographs
   b. Not usually associated with expansion
   c. FCOD affecting multiple family members appears to be quite uncommon.
   d. Familial form is characterized by more expansile lesions, which may recur after surgery, and it tends to occur in younger subjects.
   e. FCOD appears to be inherited(**遺傳**) as an autosomal dominant trait(**體染色體顯性遺傳**) with variable phenotypic expression(**表現型**)

In the present case, no familial aspects of the disease could be established. The case was also painless, but it showed several impacted teeth and marked expansion in both jaws. The nonfamilial form of FCOD very rarely shows such a combination.

   f. Multiple impacted teeth are a rare phenomenon
   g. 17 impacted teeth were the maximum number of impacted teeth among familial FCOD

In the present case, 15 impacted teeth were seen, and there were no familial aspects. To our knowledge, our case has the maximum number of impacted teeth among nonfamilial FCOD cases reported thus far.

五、 Conclusion

1. Bone expansion and multiple impacted teeth are very rarely seen in nonfamilial forms of FCOD.
2. If the lesions and impacted teeth are asymptomatic, it is wise to avoid surgical intervention.
3. If the expansion makes prosthetic rehabilitation impossible in edentulous jaws, recontouring surgery may be the best choice to obtain sufficient space for prosthesis.

題號	題目
1	Florid cementoosseous dysplasia (FCOD)必須和 Paget's disease, chronic diffuse osteomyelitis, and Gardner's syndrome 作區別診斷,其中和 Paget's disease 的主要差異在於? (A) skeletal changes, skin tumors, or dental anomalies (B) alkaline phosphatase level (C) Whether confined to tooth-bearing areas (D) clinical signs of inflammation
答 案 (B)	出處：Oral and maxillofacial pathology 3rd edition , Neville, et al p.640
題號	題目
2	關於 Florid cementoosseous dysplasia (FCOD)下列何者錯誤? (A) 好發於中年黑人女性 (B) Bone expansion 和 multiple impacted teeth 是不常見的 (C) 就算病灶和阻生齒是無症狀的,我們也應該要進行手術的積極性治療 (D) 如果 Bone expansion 造成補綴物製做困難, recontouring surgery 是一個好的治療方式
答 案 (C)	出處：Oral and maxillofacial pathology 3rd edition , Neville, et al p.640