

原文題目(出處)：	Juvenile Aggressive Psammomatoid Ossifying Fibroma: An Interesting, Challenging, and Unusual Case Report and Review of the Literature. J Oral Maxillofac Surg 2009;67:200-6,
原文作者姓名：	Samantha F. Smith, Laurence Newman, Donald M. Walker, Harry Papadopoulos
通訊作者學校：	University College London Hospitals, Oral and Maxillofacial Surgery, Mortimer Market, London WC1E 6AU, United Kingdom
報告者姓名(組別)：	Intern L組 黃靖凌
報告日期：	98.02.16

內文：

### Case Presentation

- A Caucasian 12-year-old girl was referred with a **slowly enlarging right-sided mandibular swelling of 2 years' duration**.
- PI: Two previous attempts at excision had failed. There was no family history of skeletal disease.
- OE:
  - Extraoral: there was right sided facial swelling.
  - Intraoral: no teeth in the right mandibular quadrant, not tender on palpation, bony-hard in consistency, covered by normal mucosa extended from the ramus to the mental region, and had caused expansion of the lingual and buccal plates of the right mandible. No other bones were involved
- Imaging :
  - An orthopantomogram showed: **a multilocular expansile lesion with ground glass appearance**.
  - Computed tomography (CT) scans: a multilocular lesion with heterogeneous attenuation.



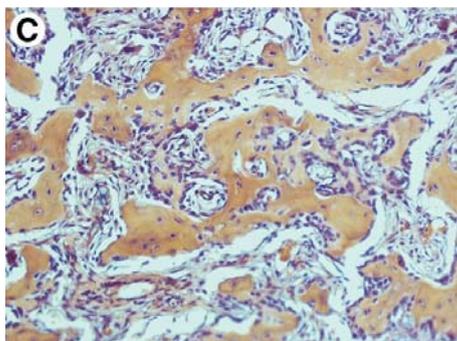
### Treatment Recommendation (Harry Papadopoulos, MD, DDS)

- Juvenile aggressive ossifying fibroma is an **uncommon, benign neoplasm** of bone that typically presents **in children and adolescents**.
- These lesions exhibit **a slight male predilection** and a **more aggressive behavior** compared to the more common ossifying fibroma seen in adults
- **quite large on initial presentation**; rapid enlargement, esp. in younger children
- There are 2 histopathological variants of this lesion: a **psammomatous** and **trabecular** pattern.
- Recurrence rates for juvenile ossifying fibroma : 30~56%
- Smaller tumors may be treated by **nucleation and curettage** successfully
- larger, more aggressive tumors will require resection **with 5-mm margins**
- The free segments of the mandible are then stabilized with a **2.7-mm reconstruction plate**, after placing the remaining dentition into **maxillomandibular fixation**.
- because of the high recurrence rate, immediate reconstruction is not advised.

- Secondary reconstruction may be undertaken sooner for slow-growing lesions (<1 year), and be delayed for fast-growing, aggressive lesions (>1 year).

#### Actual Treatment Rendered

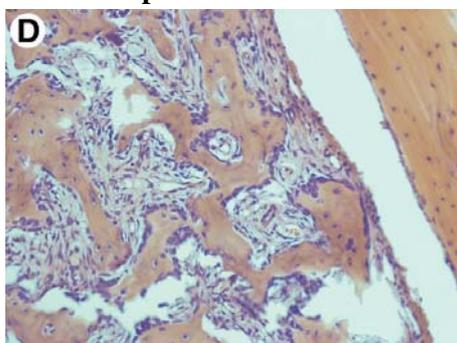
- A 3D (CAD CAM) model was constructed. The mirror image of the left unaffected side of the mandible was transcribed onto the model. **A titanium reconstruction plate** was manipulated to fit the model.



- The surgical treatment was carried out in 2 stages, a week apart.
  - the lesion was excised completely by a segmental resection of the jaw.
  - A neck dissection was carried out to access vessels

- The reconstruction plate was inserted.
- A right-sided deep **circumflex iliac artery**

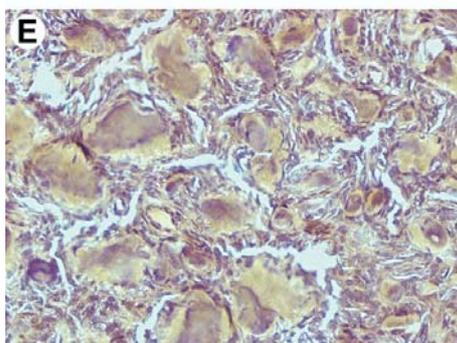
**free flap** was raised and inserted to reconstitute the mandible



#### ■ PATHOLOGY

- In the predominant psammomatoid component, approximately spherical ossicles with irregular seams of osteoid had been laid down in a highly cellular fibrous tissue.
- The second pattern was trabecular in type, characterized by trabeculae of woven bone lined by osteoblasts.

- At 9 months postoperatively, 3 osseointegrated dental implants were inserted into the deep circum-flex iliac artery bone, on which a bridge was made, to replace the missing teeth.



#### Discussion

- Ossifying fibromas (OFs) are well-demarcated benign tumors of the craniofacial skeleton.
- The lesions feature **fibrous tissue, osteoid** and **mineralized material comprising bone, and cementum-like deposits.**
- these mesodermal jaw tumors arise from **cells of odontogenic origin.**
- Ossifying fibromas (OFs): in blacks than whites,  
in the second to fourth decade.  
more often in males,  
commonly in the mandible.
- They are usually painless, well circumscribed, slow growing, and benign.
- The histopathology of OFs:
  - The lesions are **well defined**, often together with a surrounding outer **border of**

**cellular fibrous tissue.**

- The lesions of OF contain fibrous tissue that may be **highly cellular** or alternatively zones of almost **acellular collagen**
- The mineralized tissue comprises woven and lamellar bone, and acellular, approximately spherical, calcified deposits resembling cementum.
- Ossifying fibromas predominantly are radiolucent with various degrees of calcification, particularly near their center. 53% of cases present purely as a radiolucency and 86% of OF show no relationship with tooth apices or previous extraction sites.
- Two subgroups: **juvenile psammomatoid ossifying fibroma (JPOF)** and **juvenile trabecular ossifying fibroma (JTOF)**

	the psammomatous type	The trabecular pattern
Site	Orbit and paranasal sinuses	the jaws
Age	An older and wider age range	children and adolescents(8.5~12)
Histology	both variants tend to be unencapsulated, composed of a cellular fibrous connective tissue, and have small areas of giant cells.	
mineralized components	roughly spherical ossicles resembling the psammoma bodies of meningiomas set in cellular fibrous tissue.	trabeculae of woven bone. Bands of cellular osteoid are also found.

- The involvement of the inferior alveolar nerve causing anesthesia is rare.
- **Malignant change** has **not** been recorded in OF or its juvenile subgroups
- Almost all cases of OF should be treated surgically. Radiotherapy seems **contraindicated** because the tumors are believed to be radio-resistant and because of the adverse effects of radiotherapy.
- In view of the previous recurrences, a more radical operation to remove the juvenile OF in our patient was decided on, she need to be followed up carefully.

<b>題號</b>	<b>題目</b>
<b>1</b>	下列何者為骨化纖維瘤(ossifying fibroma)具有的特徵? (A) 不含有纖維組織 (B) 不含有骨小樑 (C) 與旁邊正常骨組織界線清楚 (D) 不含有牙釉質樣小體
<b>答案(C)</b>	出處：97年第二次高等考試
<b>題號</b>	<b>題目</b>
<b>2</b>	下列骨腫瘤中，復發率最高者為： (A) 骨瘤(osteoma) (B) 造牙骨質細胞瘤(cementoblastoma) (C) 牙骨質-骨質化纖維瘤(cement-ossifying fibroma) (D) 幼年性骨化纖維瘤(juvenile ossifying fibroma)
<b>答案(D)</b>	出處：94年第一次高等考試