原文題目(出處):	A granular-cell odontogenic tumour occurring alongside
	orofacial granulomatosis: a report of the first case
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## Introduction

### Granular-cell odontogenic tumours (GCOTs):

- Benign odontogenic neoplasms
- Age,Sex: Most commonly in middle-aged women
- Site: Mandible
- Symptom: Asymptomatic swelling
- Diagnosis: Biopsy and histological examination
- Differential diagnosis: Ameloblastoma, fibrous dysplasia, Peripheral ossifying fibroma
- Treatment: Surgical excision or curettage
- Prognosis: Recurrence and malignant transformation are rare

# **Orofacial granulomatosis (OFG):**

- Age: Children and young adults
- Site: <u>Lips</u>
- Symptom: <u>Asymptomatic enlargement</u>
- Cause: May be genetic, infectious or immune-mediatedin origin
- Diagnosis: Clinical presentation, biopsy of the affected mucosa, with histological examination revealing non-caseating granulomas
- Differential diagnosis: Crohn's disease, Angioneurotic oedema, potential dietary allergens
- Treatment: Intralesional corticosteroid injection
- Case report

#### **Present illness:**

A 19-year-old woman of Afro-Caribbean origin presented with a 3-year history of a gradually enlarging hard painless swelling of the right mandible. Recurrent upper lip swelling, occurring at 2-month intervals over the last 5 years, was also reported (Figs 1 and 2). The patient was otherwise fit and well; she was a smoker and consumed a moderate amount of alcohol.





Figure 1 Diffuse swelling to upper lip.

#### **Clinical findings:**

- Right sided facial asymmetry

Figure 2 Swelling to right mandible.

- No lymphadenopathy
- Bony expansion of the buccal sulcus extending from the lower right second premolar to the lower right second molar
- Overlying mucosa was normal in appearance
- No altered sensation to the lower lip

# **X-ray findings:**

- Radiolucency extending from the distal aspect of the root of the lower right 2<sup>nd</sup> premolar to the mesial aspect of the unerupted lower right 3<sup>rd</sup> molar, with expansion of the mandible in the inferior– superior aspect.
- Honeycomb pattern
- Minimal resorption of the distal root of the 1<sup>st</sup> molar was evident, with no displacement of the dentition



Figure 3 Unilocular radiolucency to right mandible.

# Pathological findings:

# Incisional biopsy of the right mandibular cystic lesion

- Myxoid, cellular connective tissue comprising spindle cells with eosinophilic cytoplasm and oval nuclei interspersed with large numbers of granular cells displaying pale, eosinophilic granular cytoplasm and eccentric, oval nuclei (Fig. 4).
- There was no cytological atypia or evidence of malignancy.
- Immunohistochemical analysis
- These granular cells showed cytoplasmic positivity for CD68, as one would expect in a case of GCOT (Fig. 5)

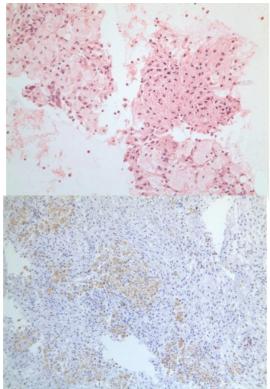


Figure 5 CD68 staining of the granular cells.

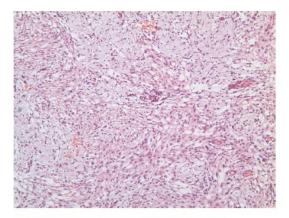


Figure 6 Granular cells in granular-cell odontogenic tumour.

# **Biopsy of the upper lip**

- These appearances are consistent with those of OFG. However, they can also be seen in Crohn's disease, which needs to be clinically excluded.

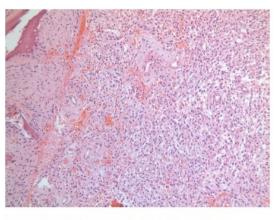
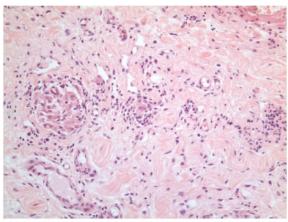


Figure 7 Low-power view of granular-cell odontogenic tumour.



# Management

- The GCOT was removed by curettage under general anaesthetic.



Figure 9 Removal of a window of bone to expose the granular-cell odontogenic tumour.

Figure 8 Orofacial granulomatosis. Non-caseating granuloma evident to left of slide. Perilymphatic chronic lymphocytic infiltration also illustrated.



Figure 10 The intact neurovascular bundle.



Figure 11 Post-operative orthopantomogram.

- Enlargement to the upper lip associated with the OFG was reduced by local infiltration of a corticosteroid
- 4 months postoperatively follow up
  - $\checkmark$  The GCOT showed no evidence of recurrence.
  - ✓ There was evidence of recurrent inflammation to the upper lip, and an additional intralesional corticosteroid injection was provided.
- 6 months postoperatively follow up
  - $\checkmark$  No evidence of anaesthesia to the cutaneous distribution of the IAN
  - $\checkmark$  All teeth in the quadrant had a positive response to vitality testing.
  - ✓ An OPT radiograph: bony infill to the area of curettage. The abnormal 'honeycomb' appearance of the mandible was observed to extend from the apex of the lower right  $2^{nd}$  premolar to the midline of the lower right  $3^{rd}$  molar.
  - ✓ There remained evidence of expansion of the mandible in the superior–inferior aspect with bowing of the lower border.



Figure 12 Orthopantomogram taken 6 months post-operatively.

#### Discussion

#### Granular-cell odontogenic tumours (GCOTs):

- Rare benign odontogenic neoplasm with fewer than 40 reported cases.
- Common in female
- High proportion of cases are observed in patients of 60 to 80 y/o
- Asymptomatic buccal expansion of the posterior mandible
- X-ray: unilocular or multilocular RL, RO presentation has been described
- No evidence of displacement of the dentition

- The inferior dental canal was observed to pass through the lesion and to have been preserved intact. Previous cases have illustrated displacement of the inferior dental canal inferiorly.

## **Orofacial granulomatosis (OFG):**

- OFG is an uncommon condition characterised by recurrent swelling of the orofacial region
- Corticosteroids are the mainstay of clinical treatment and are intended to reduce inflammation and lower the incidence of recurrence.

## ■ Conclusion

- The occurrence of a granular-cell odontogenic tumour alongside a presentation of orofacial granulomatosis has not previously been reported.
- Both conditions are known to have an immune-mediated component, a granulomatous reaction can be observed in cases of GCOT. Despite this, the two conditions do not appear to be related.

題號	題目
1	Choose the false statement of Granular-cell odontogenic tumors.
	(A) Benign odontogenic neoplasms
	(B) Asymptomatic swelling over mandible
	(C) Most commonly in young female
	(D) Treatment involves either surgical excision or curettage
答案(C)	出處: Oral and maxillofacial pathology third edition P729
題號	題目
2	Which statement about Granular-cell odontogenic tumor is wrong
	(A) Uilocular or multilocular radiolucency lesion was noticed in
	x-ray findings
	(B) More than half being older than 40 years of age
	(C) Would cause of the displacement of the dentition
	(D) Bone expansion was noticed
答案	出處: Oral and maxillofacial pathology third edition P729
(C)	