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| 原文題目(出處)： | Desmoplastic ameloblastoma: analysis of 17 Nigerian cases Oral Surg Oral Med Oral Pathol Oral Radiol Endod 2011;111:e27-e31. |
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內文：

Objective : This study aimed to add to existing knowledge on desmoplastic ameloblastoma (DA) previously reported in the scientific literature and analyze data that could help speculate on its biologic profile.

Study design : From 330 cases of ameloblastoma, 17 cases of DA were retrieved and analyzed for **estimated mean growth rate (EMGR)** and histologic variants. EMGR for DA was compared with EMGR for conventional ameloblastoma (CA), as recorded over the same period of 38 years.

Results : Desmoplastic ameloblastoma had predilection for **mandible** (81.2%), **posterior mandible** being the most commonly affected, contrary to scientific literature reports of anterior maxillary predilection. Simple DA (88.0%) and DA with osteoplasia (12.0%) were the histologic variants observed. EMGR for DA (0.36 _ 0.44 cm/mo) was significantly **less** than EMGR (0.71 _ 1.16 cm/mo) for CA.

Conclusion : This study speculates that DA tends to be **less biologically aggressive** than CA and has predilection for **posterior mandible** in Nigerians.

- Ameloblastoma may be described as a **family** of diseases that possess diverse biologic behavior. It has over time been regarded as a **benign tumor** that may be locally aggressive, owing to its potential for invasion of surrounding soft tissue and bone. Not all ameloblastomas behave this aggressively and it is therefore important to distinguish between clinical types of ameloblastoma to deliver qualitative treatment to patients.
- main types :
 - conventional ameloblastoma**, which is usually radiographically **multilocular**.
 - unicystic ameloblastoma**, which is radiographically **unilocular** and commonly related to **impacted teeth**.
 - peripheral ameloblastoma**, which is basically a **soft tissue tumor** present on the **gingival** and clinically simulates a reactive **soft tissue swelling**
- Conventional ameloblastoma has at least 6 subtypes, of which desmoplastic ameloblastoma is one.
Investigators have observed that recurrence in cases with DA is almost as high as with the conventional ameloblastoma. **Radical therapy** therefore, has been indicated for the treatment of DA.
- desmoplastic ameloblastoma (DA)** : presence of islands of ameloblastic columnar

cells surrounding spindle-shaped stellate reticulum-like cells in a stroma with marked desmoplasia

5. DA在已知的病例中是少見的，所以對它的了解並不高，現今的研究都希望能收集更多病例好更加了解它

MATERIALS AND METHODS

38年來共收集了573個齒源性腫瘤的病例，其中有330個病例是ameloblastoma分成四個subtype：1) conventional ameloblastoma; 2) unicystic ameloblastoma; 3) peripheral ameloblastoma; or 4) esmoplastic ameloblastoma. The following clinicohistologic data on each case of DA were pooled: **age, gender, size** (largest diameter at hospital presentation), **site of lesion, duration, histopathologic characteristics, and radiographic presentation**. Histologically, the DA cases were grouped into the following 2 variants: 1) simple desmoplastic variant; and 2) desmoplastic with osteoplasia variant (多了一些**calcific structures**).

The biologic profile of DA in this study was speculated based on estimated tumor growth rate (ETGR) of the lesion (tumor growth rate = largest diameter at presentation/duration of tumor [in months] at presentation).

RESULT

- The most frequently occurring odontogenic tumour was ameloblastoma (57.59%, 330 cases).

Table 1. Frequency distribution of types of ameloblastoma in the series

| <i>Malignant ameloblastoma</i> | <i>n</i> | <i>%</i> |
|--------------------------------|------------|--------------|
| Follicular | 199 | 60.30 |
| Plexiform | 83 | 25.15 |
| Desmoplastic | 17 | 5.15 |
| Peripheral | 3 | 0.91 |
| Unicystic | 19 | 5.76 |
| Malignant ameloblastoma | 4 | 1.21 |
| Ameloblastic carcinoma | 4 | 1.21 |
| Unspecified | 1 | 0.30 |
| TOTAL | 330 | 99.99 |

- Age range in cases with DA was 17-73 years (mean 38.3 ± 18.197, mode 22.00, median 32.00) with peak incidence between the third and fifth decades. DA was observed to occur slightly more in men (56%) than in women (44%).

Table II. Frequency distribution of age range in patients with desmoplastic ameloblastoma

| <i>Age range (y)</i> | <i>n</i> | <i>%</i> |
|----------------------|----------|----------|
| 0-10 | 0 | 0.00 |
| 11-20 | 2 | 11.76 |
| 21-30 | 5 | 29.41 |
| 31-40 | 3 | 17.65 |
| 41-50 | 3 | 17.65 |
| 51-60 | 1 | 5.88 |
| >60 | 3 | 17.65 |
| TOTAL | 17 | 100.00 |

Age range = 17-73 years. Mean age = 38.353 years. Standard deviation = 18.197 years. Median = 32.000 years. Mode = 22.000 years.

- A total of 88.0% of the lesion were the simple desmoplastic variant, and 12.0% presented with osteoplasia.
- The estimated monthly tumor growth rate observed was statistically significantly higher in the conventional type (0.7080 _ 1.1645 cm/mo) compared with DA (0.3653 _ 0.4417 cm/mo)

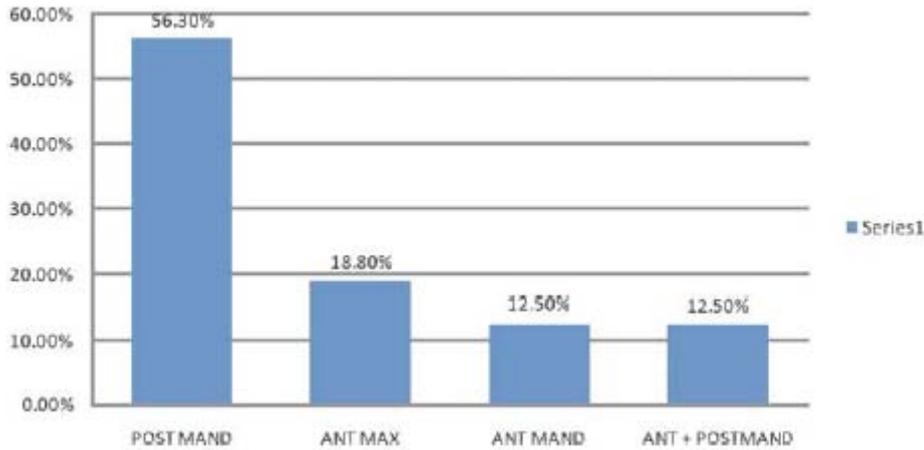
Table III. Growth pattern of ameloblastoma

| <i>Type</i> | <i>EMGR (cm/mo)</i> | <i>Variance</i> | <i>SD</i> |
|--------------|---------------------|-----------------|-----------|
| Conventional | 0.7080 | 1.356 | 1.1645 |
| Desmoplastic | 0.3653 | 0.195 | 0.4417 |

EMGR, Estimated mean growth rate.

Variance between samples = 9.65. Residual variance = 0.78. F statistic = 12.44. *P* = .000480.

- The majority of DA (82.4%) presented as radiolucent lesions on radiograph, and 3 cases (17.6%), which included 1 case of simple DA and 2 cases of DA with osteoplasia, presented as a combination of radiolucency and radiopacity.
- A total of 81.3% of DA had a mandibular site predilection, with the posterior mandible being the most commonly affected site (56.3%) compared with the anterior mandible.



DISCUSSION

1. Our observation of 2 histologic variants of DA, with simple DA being predominant (88.0%) and DA with osteoplasia being rare (12.0%), is worthy of note, because most of the reports in the scientific literature have reported occurrence of only the simple DA.
2. DA has a tendency : 合成 **extracellular fibrous protein** 而變得 desmoplasia 或是 osteoplasia
3. Observation from this series that DA, like the conventional ameloblastoma, occurred more frequently in the **posterior mandible**
4. Multilocular radiolucency (82.4%)
mixed radiolucent and radiopaque radiographic appearance, thereby mimicking a fibro-osseous lesion. (17.6%)
5. 0.36 _ 0.44 cm/mo EMGR of DA is significantly **lower** than 0.71 _ 1.16 cm/mo EMGR for onventional ameloblastoma → DA might be less biologically aggressive , 可能是因為 DA 有 **limiting barrier** 而 CA 沒有
6. Our Oral and Maxillofacial Surgery Department treats all cases of ameloblastoma, except unicystic ameloblastoma, by **surgical resection**.
7. DA 和 CA 要能鑑別清楚 , 尤其如果是 DA 他有機會以類似 fibroosseous lesion 呈現 , 更容易混淆

| 題號 | 題目 |
|-------|---|
| 1 | Which type of ameloblastoma is the most common ? (A) Follicular type (B) Acanthomatous type (C) Granular cell type (D) Basal cell type |
| 答案(A) | 出處 : Oral & Maxillofacial PATHOLOGY secon edition P.613 |
| 題號 | 題目 |
| 2 | Which classification of odontogenic tumor is ameloblastoma belong to ? (A) Odontogenic epithelium origin (B) Mixed origin (C) Odontogenic ectomesenchyme origin |
| 答案(A) | 出處 : Oral & Maxillofacial PATHOLOGY secon edition P.611 |