

原文題目(出處)：	Prognostic and proliferative evaluation of ameloblastoma based on radiographic boundary. Int J Oral Sci 2012;4: 30-3.
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內文：

Abstract:

Ameloblastoma is a benign odontogenic tumor with an aggressive biological behavior, and the surgical treatment frequently results in failure for the postoperative recurrence. The aim of this article was to investigate whether the proliferative ability and prognosis of ameloblastoma could be evaluated by the radiographic boundary

The ameloblastoma cases treated by the conservative therapy in our hospital between 1981 and 2001 were divided into three groups based on the nature of the radiographic borders of the lesions. The biologic behavior was evaluated by Ki-67 antibody immunohistochemically.

Comparisons of prognosis and Ki-67 expression were carried out by statistic methods. There were 24 cases of well-defined edge with sclerosis (group I), 41 cases of well-defined edgewithout sclerosis (group II) and 32 cases of ill-defined edge (group III). The recurrent rates were 29.2% in group I, 43.9% in group II and 62.5% in group III (P,0.05)

The cells in group III expressed the highest Ki-67 level (P,0.05). The radiographic boundary could be used as one of indicators in evaluating the proliferative ability of ameloblastoma and the patient's prognosis, which was consistent with Ki-67 expression

Introduction:

- Ameloblastoma is a benign odontogenic tumor with an aggressive biological behavior
- It was found that ameloblastomas of different radiographic appearances had not similar biological behaviors

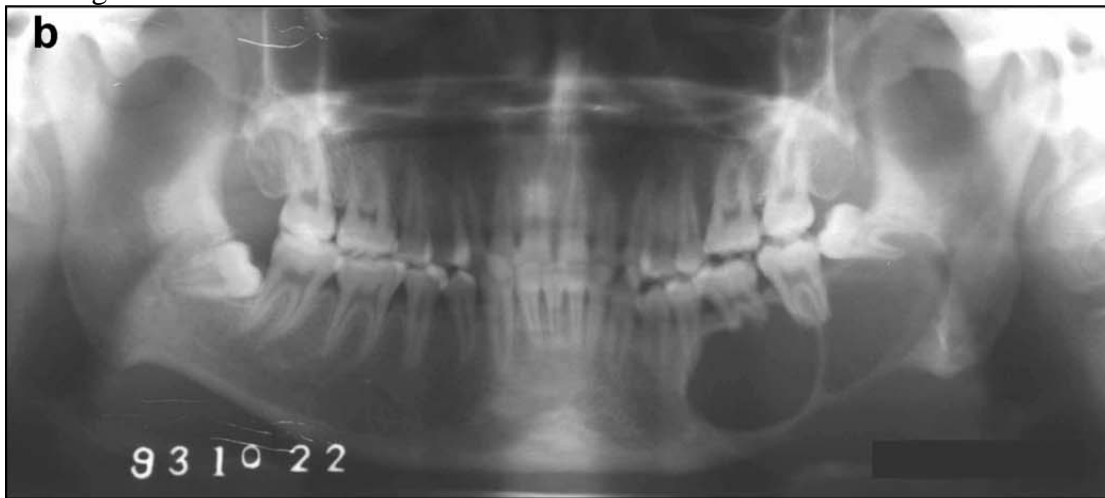
Material and methods

ameloblastoma cases of the last 20 years retrieved from the files of West China Stomatology Hospital of Sichuan University between 1981 and 2001 and focused on the patients who received a conservative treatment

Panoramics of all patients were reviewed as the basic method to evaluate the radiographic boundaries and gain other information such as the size and location of the lesions. If necessary, computer tomography was employed to assist in providing the information in the buccolingual direction



(a) Group I: well-defined edge with sclerosis
group I presented a confined radiolucent lesion with a sharp edge and a sclerotic line existing in more than 80% of the border between the normal bone and the lesion



(b) group II: well-defined edge without sclerosis
group II was a confined radiolucent lesion with a sharp edge which was similar to that of group I, but with a sclerotic line existing in less than 20% of the border



(c) group III: illdefined edge.
If any part of the edge was not well-demarcated, the case was assigned into group III
The proliferative ability of the tumor was investigated by Ki-67 monoclonal antibody (clone MIB-1; Dako, Glostrup, Denmark) immunohistochemically

The label index (LI) of Ki-67 was evaluated by the proportion of positive cells in all tumor cells in 10 adjacent high-power fields.

Result :

178 ameloblastoma cases were reviewed in this study.

Ninety-seven patients received a conservative treatment, which was the curettage or enucleation of the tumor and the periodic follow up ages ranged from 21 to 63 years (37.268.6 year). There were 51 male and 46 female patients with a ratio of 1.11 : 1

All the lesions were located in the mandible and presented as unilocular or multilocular radiolucent regions. The differences of radiological features were not statistically significant (P.0.05).

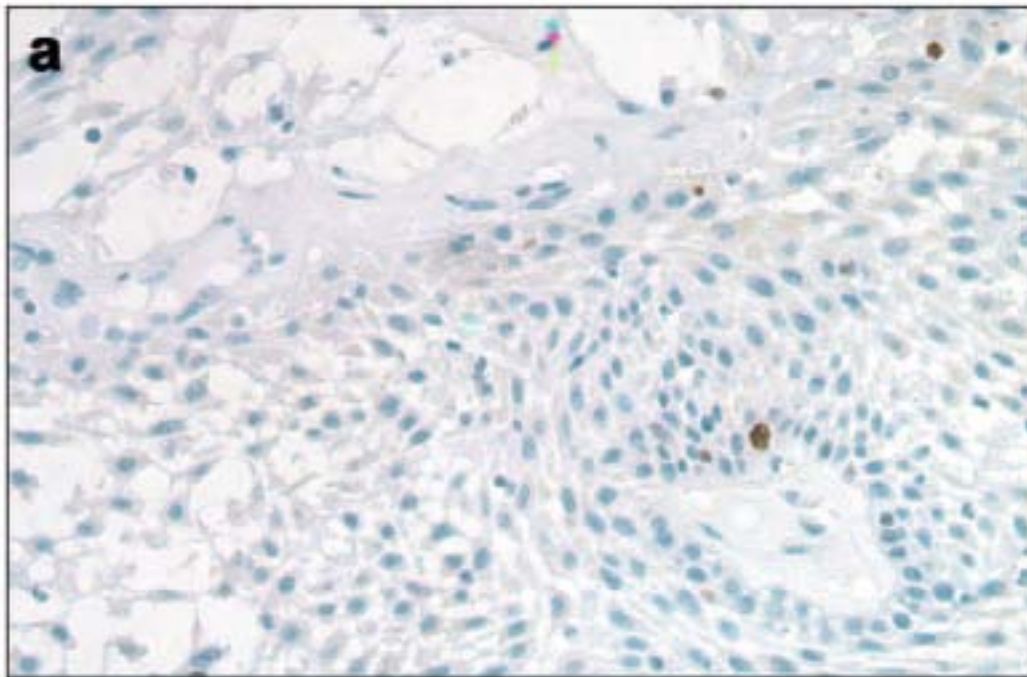
46.4% of the patients receiving a conservative treatment suffered recurrence (45 of 97), and only 1.2% of the patients receiving a radical surgery experienced recurrence (1 of 81).

Table 1 Results of the conservative management and the expression of Ki-67 antigen

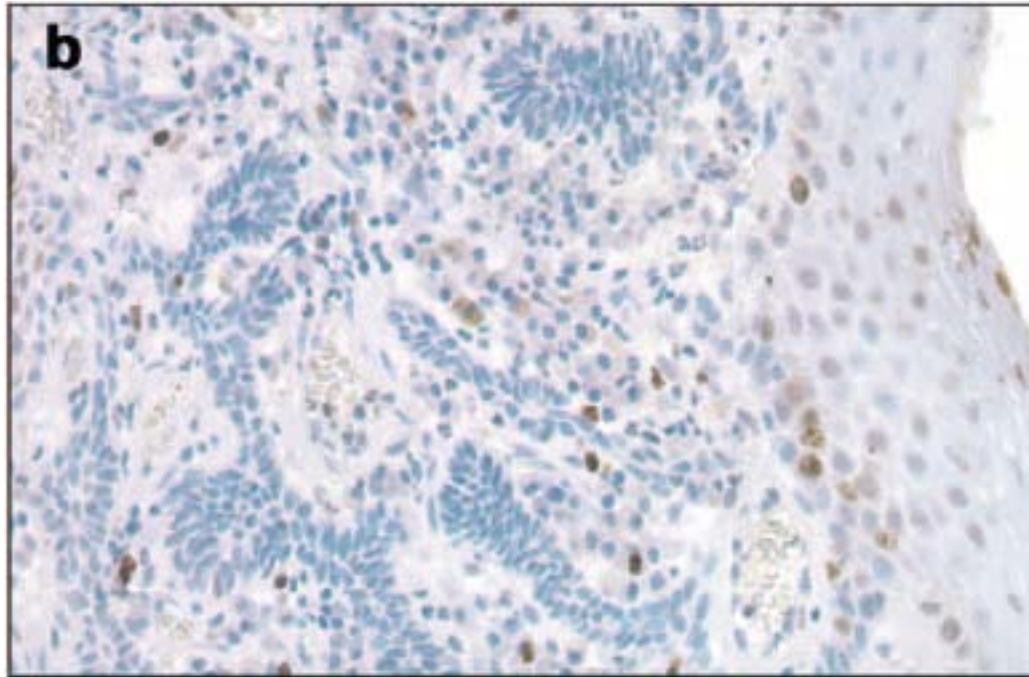
Group	N	Results of therapy		LI of Ki-67 antigen		Recurrent rate/%
		Tumor-free	Recurrence	Range/%	Mean±s.d./%	
Group I ^a	24	17	7	0.94-4.06	2.06±0.82	29.2
Group II ^a	41	23	18	1.93-7.42	3.17±1.23	43.9
Group III ^a	32	12	20	1.06-8.43	4.25±1.01	62.5

Abbreviation: LI, label index.

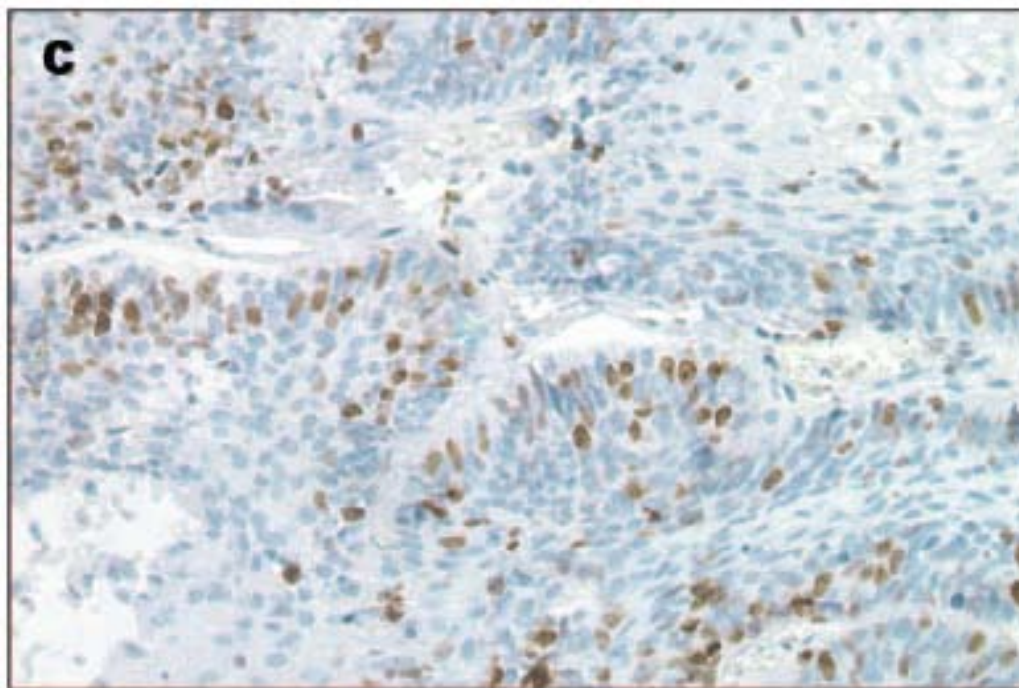
^a Group I: well-defined with sclerosis; group II: well-defined without sclerosis; group III: ill-defined.



(a) Group I: well-defined edge with sclerosis



(b) group II: well-defined edge without sclerosis



(c) group III: ill-defined edge

Discussion :

Although it is considered a benign tumor, ameloblastoma has aggressive behaviors including local recurrence, cancerization or even distant metastasis radical surgery is a best choice for many patients of ameloblastoma, but not for all

Our data showed that more than 50% patients receiving the conservative treatment had good prognosis without any recurrence

Some scholars believed that a radical surgery should be used for the multicystic ameloblastoma to prevent the recurrence. From the pathological aspect, the follicular ameloblastomas were thought to have a higher recurrence rate than plexiform or unicystic Due to lack of the cortical plates, ameloblastoma in maxilla was thought to

spread readily into the adjacent vital regions and suggested to be treated by extensive resection

Ueno et al. reported that biological behavior of the ameloblastoma was related to the radiographic appearance, and the multilocular type of ameloblastoma had a poor prognosis

Ki-67 LI of the ameloblastoma in group III was the highest among the three groups which could be attributed to the fact that ameloblastoma with ill-defined radiographic boundary contained more cells with higher proliferative ability

Conclusion:

It means that we could use the radiographic boundary as a reference to the patients for choosing surgical plan, apart from the lesion size, location, patient age, clinical and pathological types, and other parameters, and avoid the over treatment to make those patients get a better quality of life

題號	題目
1	何種形態的 ameloblastoma 好發率最高？ (A) Conventional / multicystic (B) Unicystic (C) Peripheral (extrasosseous)
答案(A)	出處：Oral and maxillofacial pathology 2 nd Edition
題號	題目
2	Which one of the following statement about unicystic ameloblastoma is wrong？ (A) Account for 10~15% of intraosseous ameloblastoma (B) Usually found in posterior maxilla (C) Often seen in young patient (D) Often asymptomatic
答案(B)	出處：Oral and maxillofacial pathology 2 nd Edition