Read, Learn and Earn
CE
CONTINUING EDUCATION

# Ameloblastic Fibrodentinoma

## [ A Case Report ]

Hakan Alpay Karasu, D.D.S., Ph.D.; Hakan Akman, D.D.S., Ph.D.;
Lokman Onur Uyanik, D.D.S.; Nejat Bora Sayan, Prof.Dr., D.D.S., Ph.D.

**Abstract:**

A case report of an ameloblastic fibrodentinoma (AFD) in a 21-year-old female patient is presented. This rare, benign tumor was surgically treated. The histological findings and follow-up are presented.

Ameloblastic fibrodentinoma (AFD) is a rare, benign odontogenic tumor composed of neoplastic odontogenic epithelium and odontogenic mesenchyme with dentin or dentin-like tissues.[1] It has also been called dentinoma or fibroameloblastic dentinoma.[2] AFD is a slow growing, often asymptomatic tumor; and it may enlarge to an extreme size. Radiographically, it shows a fairly well-delineated radiolucency, with varying degrees of radioopacity.[2]

In this case report, surgical treatment, histological findings and one-year follow up of the huge AFD is presented.

### Case Report

A 21-year-old female patient was referred to the Department of Oral and Maxillofacial Surgery. She complained of mild swelling, which occurred approximately a year earlier, after the eruption of the left mandibular third molar. The patient did not seek treatment for six months, during which time, the swelling exacerbated.

The dentist planned to exract the third molar following appropriate antibiotic therapy. Intraoral examination showed that there was a hypertrophic and vascular lesion, which extended from the ramus of the mandible to the foramen mentale.The second and third molars, which were associated with the lesion, showed moderate luxation.

Radiographs showed a multilocular, soap bubble-like radiolucency in the left mandibular posterior region. This radiolucent area extended from the root of the second premolar to the mandibular ramus. The roots of some neighboring teeth showed resorption (Figure 1).

The first cytologic finding was benign. The second cytologic finding was compatible with ameloblastoma. Under general anesthesia the mass was excised in total, and the left second premolar, left second and third molars were extracted (Figure 2). The diagnosis on the third examination was AFD.

### Histological Findings

The mass was composed of tumoral tissue that consisted of fibroblastic and cellular stroma. The stroma consisted of ameloblast cell islands and dentinoid-like cells similar to hylanized eosinophilic material. There was no cellular atypia, and there were no symptoms of a malignant lesion.

### Discussion

Ameloblastic fibrodentinoma arises mainly in the posterior mandible ( maxilla-mandible ratio 1:3) and usually in association with the unerupted molar teeth of young adults, adolescents and children.[3-9] It is more common in males than females, and affects people younger than 30 to 35 years of age.[4] Some investigators say ameloblastic fibrodentinoma, as a rule, is related to an impacted

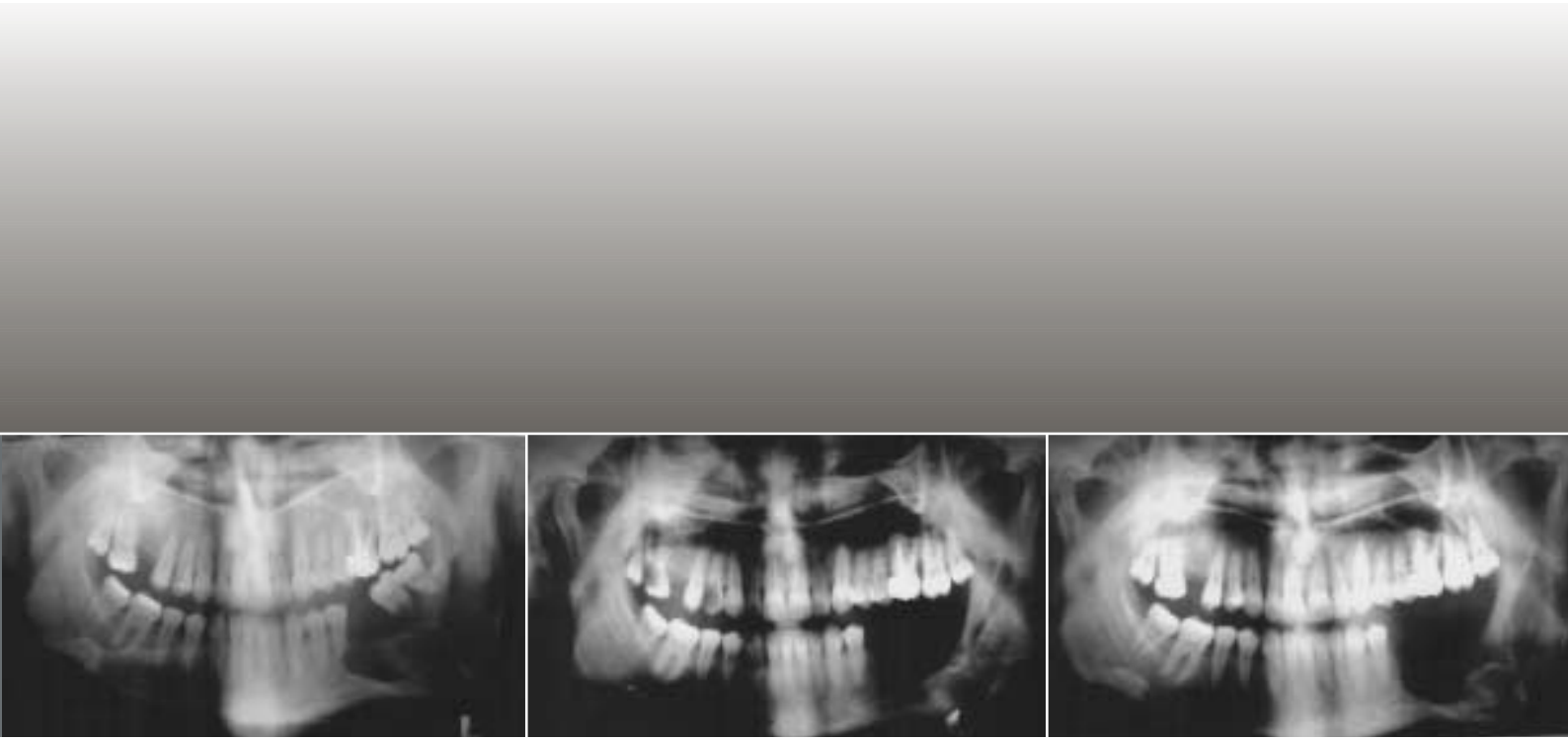

**Figure 1. Preoperative radiography of patient.**

**Figure 2. One-month postoperative radiography.**

**Figure 3. One-year postoperative radiography.**

tooth. In our case, the patient was affected for this tumor.[4,6,9] Akal et al., Anker and Radden say the AFD has significant potential for growth.[3,5]

In the case presented here, the lesion of the left mandible area decorticated the mandible in less than one year and grew excessively.

In the oral examination, the lesion seemed to be a vascular pathology, but the histologic findings didn't support this clinical impression. There was an anastomosis with ameloblastic cell island in stroma and eosinophilic material reminiscent of dentinoid material. Enamal matrix was not present in the specimen.

One-year follow-up of the patient shows no recurrence (Figure 3). ■

## REFERENCES


1. Van Wyck W, Van Der Vyver PC. Ameloblastic fibroma with dentinoid formation immature dentinoma. A microscopic and ultrastructural study of the epithelial connective tissue interface. J Oral Pathol 1983;21:37-9.
2. Ulmansky M, Bodner L, Praetorius F, et al. Ameloblastic fibrodentinoma: report on two new cases. J Oral Maxillofac Surg 1994;52:980-4.
3. Akal ÜK, Günhan Ö, Güler M. Ameloblastic fibrodentinoma: report of two cases. Int J Oral Maxillofac Surg 1997;26:455-7.
4. Ulmansky M, Bodner L, Praetorius F, Lustmann J. Amelobalastic fibrodentinoma: report on two new cases . J Oral Maxillofac Surg 1994;52:980-4.
5. Anker AH, Radden BG. Dentinoma of the mandible. Oral Surg 1989;67:731-3.
6. Azaz B, Ulmansky M, Lewin Epstein J. Dentinoma:report of a case. Oral Surg 1967;24:659-63.
7. Gulmen S, Adams RJ, Boggiano JJ. Dentinoma of the mandible. J Oral Surg 1976;34: 21-6.
8. Lukinmaa PL, Hietaznen J, Laitinen JM, Malmström M. Mandibular dentinoma. J Oral Maxilofac Surg 1987;45:60-4.
9. Manning GL, Browne RM. Dentinoma. Br Dent J 1970;128:178-82.