Research Article

INTERNATIONAL JOURNAL OF CURRENT MEDICAL AND PHARMACEUTICAL RESEARCH

ISSN: 2395-6429, Impact Factor: SJIF: 4.656
Available Online at www.journalcmpr.com
Volume 9; Issue 6; June 2023; Page No. 365-367
DOI: http://dx.doi.org/10.24327/ 23956429.ijcmpr20230102

ODONTOGENIC FIBROMA OF MAXILLA- A CASE REPORT

Thirumurugan K[1], Megalaa N*[2], Ramesh Babu. MR[3], Nandakumar. S[4], John Shibin[5] and Ahila. E[6]

[1,3]Department of Oral and Maxillofacial Surgery Mahatma Gandhi Post Graduate Institute of Dental Sciences Puducherry
[2,4]Department of Pediatric and Preventive Dentistry Mahatma Gandhi Post Graduate Institute of Dental Sciences Puducherry
[5]Department of Pediatric and Preventive Dentistry Sri Venkateshwara Dental College, Ariyur Puducherry
[6]Department of Periodontology Sri Venkateshwara Dental College, Ariyur Puducherry

ARTICLE INFO

Article History:
Received 15th March, 2023
Received in revised form 7th April, 2023
Accepted 13th May, 2023
Published online 28th June, 2023

Key words:
Odontogenic fibroma, oral tumours

ABSTRACT

Odontogenic fibroma is an extremely rare benign tumour that accounts for 0.1 % of all odontogenic tumours. It appears as an asymptomatic expansion of the cortical plate of the Mandible or Maxilla. Radiologically it presents as a Unilocular or Multilocular radiolucency. It responds well to surgical enucleation with no tendency for recurrence. Here we describe a case of Odontogenic fibroma in Maxillary right anterior region in a 17-year-old female. The lesion was surgically removed and analyzed histopathologically. Based on clinical, radiographic and histological findings a diagnosis of Odontogenic fibroma was made and patient was advised a long-term follow- up. There has been no sign of recurrence even seven years postoperatively.

INTRODUCTION

Odontogenic fibroma is a very rare proliferation of mature odontogenic mesenchyme. It is extremely rare that locations, sex and age distributions cannot be accurately determined. [1] Generally the lesion is asymptomatic except the swelling of the jaw. [2] The lesion may evolve from a dental germ (dental papilla or follicle) or from the periodontal membrane and therefore is invariably related to the coronal or radicular portion of teeth. [3,4]

Radiographiclly the tumor sometimes produces an expansile multilocular radiolucency similar to that of the ameloblastoma. [2] Most presentations will suggest the more common radiolucent odontogenic cysts and tumors such as an odontogenic keratocyst ameloblastoma, or an odontogenic Myxoma as well as ameloblastic fibroma in children and teenagers. In younger inclividuals, the presentation will also suggest a central giant cell tumor.

Based on clinical, radiographic and histological findings a diagnosis of Odontogenic fibroma was made and surgically excised and patient was advised a long-term follow- up. There has been no sign of recurrence even seven years postoperatively.

Case History

Case report

A 17 year old female patient presented with a painless swelling on the right side of upper jaw. The patient noticed the swelling six months back which gradually increased in size..

Extra-oral examination revealed mild facial asymmetry with a hard swelling on the right side of upper jaw. There was no change of temperature or color of the overlying skin. None of the lymphnods was palpable. On intra-oral examination, a swelling extending from distal of right maxillary canine to mesial of left central incisor was found. Occlusion was not deranged and there was no mobility. The lesion was firm in consistency and there was no evidence of parasthesia. There was no obliteration of buccal sulci and overlying mucosa was normal in appearance.

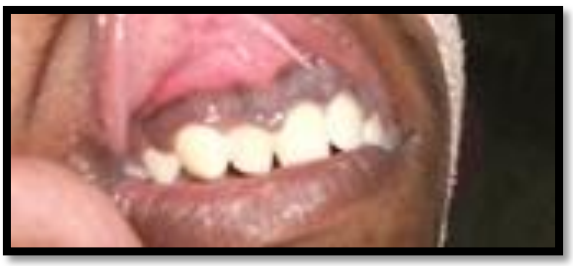

Figure 1 (Pre-op View)

CT-scan showed a multiclocular radiolucent lesion of the right maxilla extending from left central incisor to right canine.

***Corresponding author:** Megalaa N
Department of Pediatric and Preventive Dentistry Mahatma Gandhi Post Graduate Institute of Dental Sciences Puducherry

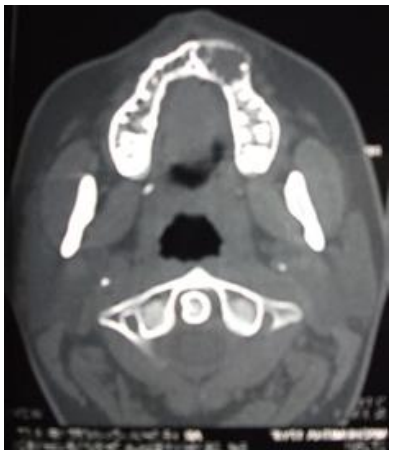

Figure 2

Aspiration was negative. Incisional biopsy was done. Differential diagnosis of the lesion included ameloblastoma, odontogenic Myxoma, ameloblastic fibroma, central gaint cell tumor, fibrosarcoma and ossifying fibroma.

The tumor was excised under general anesthesia through a gingival crevicular incision and sent for histopathological examination (HPE). The tumor was found to be a well circumscribed, solid mass that shelled out easily and completely. The embedded teeth were removed with the tumor

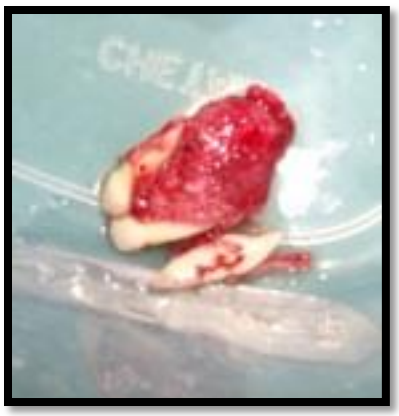

Figure 3

Microscopic examination showed islands of odontogenic epithelium surrounded by fibrous tissue, also seen are immature (woven) bone fragments admixed with fibrous tissue. Based on clinical, radiographic and histological findings a diagnosis of Odontogenic fibroma was made and patient was advised a long-term follow- up. There has been no sign of recurrence even seven years postoperatively.

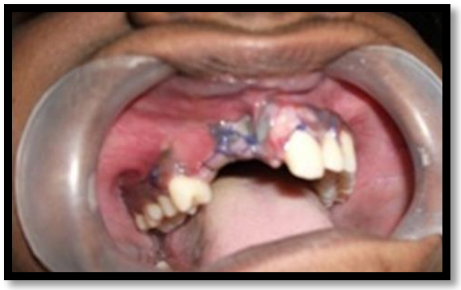

Figure 4 (Immediate post-operative)

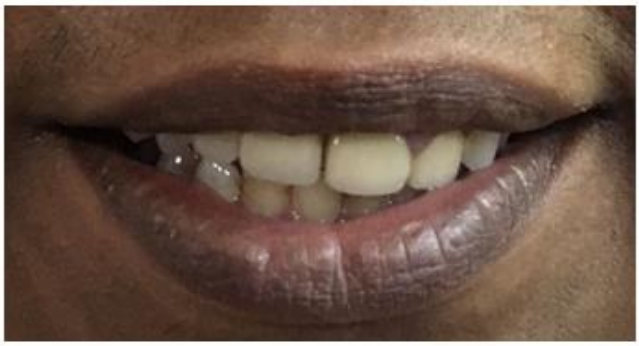

Figure 5 (Eight years post-operative)

DISCUSSION

Odontogenic Fibroma is a rare and benign neoplasm that could appear very similar to endodontic lesions and /or to the other odontogenic tumors. [4.5] Shafer *et. al.* in 1983 considered Odontogenic fibroma, a distinct neoplasm with its own histopathology and clinical features separating it from other odontogenic tumors. [6] Wesley. *el.al* in 1975 suggested a set of criteria for diagnosing odontogenic fibroma as follows. [7]

1. Clinically, the lesson is central in the jaws and has a slow persistent growth that results in painless cortical expansion.
2. Radiologically its appearance varies, but like the ameloblastoma and odontogenic myxoma most examples are multilocular radiolucent lesions that involve relatively large portions of the jaws in the later stages. In some instances, they may be associated with unerupted and/or displaced teeth.
3. Histopathologically, the most consistent feature is a tumour composed predominantly of mature collagen fiber with numerous interspersed fibroblasts. The presence of small nests and/or strands of inactive odontogenic epithelium is variable feature.
4. The lesson is benign and responds well to surgical enucleation with no tendency to undergo malignant transformation.

Gardner has referred the tumour made up of connective tissue and odontogenic islands resembling dental follicle as the simple Odontogenic Fibroma and to the tumour described by the WHO as the WHO-type COF. [8]

According to Marx most Odontogenic Fibroma require an incisional biopsy because their presentation suggests more aggressive disease, and once the diagnosis is established, a panoramic radiograph is sufficient for treatment planning. Mode of treatment for Odontogenic Fibroma is enucleation and curettage Recurrence is uncommon. [1]

Dunlap and Barker presented two cases of maxillary Odontogenic fibroma treated by curettage with follow-up of 9 years and 10 years with no evidence of recurrence. However, some recurrent cases have been reported.[9] Heimdal *et.al*) reported a case that recurred 9 years following surgery. [10] Since then Suirsky *et.al* have reported a 13% (2 out of 15 cases) rate of recurrence [11] Jones *et.al* reported a case which recurred 16 months after surgery [12]

CONCLUSION

Since very few cases are reported in the literature, diagnosis of this tumour cannot be based only on clinical and radiographic

features. Like most of the lesions only histopathological finding can confirm this particular entity.

References

1. Marx R.E Diane Sten Oral and Maxillofacial Pathology PP.672-4
2. Shafer WG, Hine MK, Levy BM. Shafer's text book of oral pathology 6th ed. El Sevier 2009 PP 294-5
3. Gardner Dg central odontogenic fibroma current concepts with oral pathology med 1996:25:556-61
4. Dunlap OCL odontogenic fibroma semin diagn pathology 1999:16:293-6
5. Gardner Dg. The pheripheral odontogenic fibroma an attempt at clarification 000 1982:54:40-8.
6. Shafer WG Hine, Levy BM. A text book of oral pathology. 4th ed. Philadelphia saunders 1983 p. 263(294-5)
7. Wesley RK, WY Socki GP, Mint SM. The central odontogenic fibroma. Clinical and morphological studies. Oral surgery oral medicine oral pathology radiology endod. 1975:40:235-45
8. Gardner DG. The central odontogenic fibroma an attempt at clarificatiuon oral surgery oral medicine oral pathology radiology endod. 1980:5:425-32
9. Dunlap CL, Barker Bf. Central odontogenic fibroma of the WHO type oral Surgery oral medicine oral pathology oral radiology Endod 1984:57:390-4
10. Heimdal A, IsaaCoson G. Nilsson L. Recurrent Odontogenic Fibroma. Oral surgery oral medicine oral pathology oral radiology endod 198:50:140-5
11. Suirsky JA, Abbey LM, Kangars GE. A clinical review of central odontogenic fibroma with addition of 3 new cases with oral medicine 1986:41:51-4
12. Jones GM, Eveson JW, Sheperd JP. Central odontogenic fibroma. A report of two centroversia cases illustratiny diagnostic dilemmas BR.J. oral maxillofac surgery: 1989:27:406-11.

****