



Fibromyxoma of Maxilla: A Case Report

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ABSTRACT

Fibromyxoma is a rare benign ectomesenchymal tumour. It commonly occurs in mandible and mainly females with age group 2nd to 4th decade are affected more as compared to male. Fibromyxoma rarely occurs in maxilla and anterior mandibular region. Here a case of fibromyxoma is presented involving the maxilla.

Key Words: Ectomesenchyme, Fibromyxoma, Myxoma, Tennis racket appearance.

I. INTRODUCTION

Fibromyxoma (also called myxofibroma) is a rare benign tumour of ectomesenchymal origin and may or may not contain odontogenic epithelium (1,2,3). In 1863, Rudolph Virchow first used the term “myxoma”. After that in 1947 Thoma and Goldman described it as “a rare benign tumour of the tooth-bearing areas of the jaw bone” (1). The term “Fibromyxoma” was first described by Dietrich et al (3). Myxoma and fibromyxoma both exhibit proliferation of primitive mesenchymal cells which produce an amorphous mucoid-rich intercellular matrix. World health organization (WHO) uses the terms “myxoma” and “fibromyxoma” interchangeably. There is different opinion also. Some authors believe that fibromyxomas have more prominent collagen fibers than myxomas (2). It usually occurs first to 4th decade of life. It has a female predilection and mandible is more commonly affected than maxilla (2,4). It occurs only 1% to 3% of all cyst and tumours of jaw (3). Very few cases of fibromyxoma involving maxilla have been reported till date. Here I present a rare case of fibromyxoma involving maxilla of a female patient having 6th decade of age, which again rarely occurs.

II. CASE REPORT

A 60 year old female patient came to outpatient department with a complaint of growth on upper right back teeth region since 6-7 months. She told that the swelling was slowly growing and painless in nature and was gradually increasing in size. She felt discomfort for that. She was taken medicine for that, but got no relief. Patient also gave history of mobility of tooth adjacent to the

swelling since 1 month. Patient’s past medical, dental and family history were non-contributory. There was no parafunctional or deleterious habit present.

On extraoral examination, facial asymmetry was present on right side of upper lip region (Fig 1-A). The right and left submandibular, sublingual, submental and cervical lymph nodes are not enlarged and non-palpable. On intraoral examination, a growth was present in upper right posterior tooth region extending from lateral incisor to second premolar region measuring approx 6.5 cm x 3 cm. Overlying mucosa was reddish in color and non-ulcerated. Right upper canine tooth was shifted mesially (Fig 1-B,C). On palpation, the growth was pedunculated in nature, non-tender and firm in consistency. Overlying mucosa of growth was smooth. The growth did not bleed on probing. No carious involvement was present in relation to any tooth of that region. Canine was mobile (grade II) and it was tender on percussion.

Based on above findings, Fibroma was given as provisional diagnosis and pyogenic granuloma and benign odontogenic tumour were given as differential diagnosis.

Intraoral periapical radiograph of that region revealed no radiopacity or radiolucency present in that region (Fig 2-A). canine was displaced mesially with loss of lamina dura and first premolar was displaced distally. Alveolar margin in between canine and first premolar region was ragged in nature. Orthopantomograph also revealed same features (Fig 2-B).



Fig 1: A-Extraoral View, B & C- Intraoral View.

Excisional biopsy with marginal osteotomy was done and canine was extracted during surgery. H & E section stained revealed the presence of thin stratified squamous epithelium overlying connective tissue stroma. Stroma was loose, delicate, fibrous with numerous odontogenic epithelial islands. Numerous endothelial lined blood vessels filled with RBCs can be appreciated (Fig 3). Histopathologic impression was suggestive of Fibromyxoma.

III. DISCUSSION

Fibromyxoma is a rare aggressive intraosseous lesion derived from mesenchymal tissue (3). Earlier theories suggest that fibromyxoma of jaws originates from the neural sheath or is a result of degeneration of fibromas, lipomas and others due to chronic irritation and the degenerative processes following tissue anoxemia. In 1934, Thoma suggested that fibromyxoma of jaws is odontogenic in origin. He stated that fibromyxomas which occurs in the jaws are derived from embryonic tissues of the dental papilla, the dental follicle, or the periodontal ligament (3,4). In the present case, no bony involvement was appreciated. Probably, the tumour in this case was derived from periodontal ligament.

Fibromyxoma rarely affects maxilla and anterior part of mandible. Incisor to canine region of maxilla is rarely affected (4). Though mandible and maxillary involvement ratio is 3:1, but when found in the maxilla it usually behaves more aggressively than mandible. It involves the zygoma, maxillary sinus, and even the orbits (3,4). In the present case, maxillary canine to premolar region was affected, which is very rare.

Fibromyxoma generally present as a slow growing swelling. In early stage, it is generally asymptomatic in nature, in advanced stage, pain and paresthesia may occur. Sometimes, facial asymmetry may occur due to size of growth. In the affected region, tooth may be displaced and mobile. It may associated with unerupted tooth also (4). In the present case, facial asymmetry, tooth displacement and mobility were present.

Radiographic appearance may vary from diffuse or well defined, uni- or multilocular to mixed radiopaque-radiolucent lesion. Honey comb, soap bubble, tennis racket, wispy or spider web appearance may be appreciated in multilocular lesion (4,5). Radiographic appearances are divided into six types (5):

- Type I- Unilocular
- Type II- Multilocular (honeycomb, soap bubble, tennis racket etc)
- Type III- Involvement of local alveolar bone

- Type IV- involvement of maxillary sinus
- Type V- Osteolytic destruction
- Type VI- A mixed osteolytic destruction and osteogenesis

The present case was of type III.

Radiologic features helps to distinguish between benign myxomas and malignant neoplasms with myxomatous tissue. In MRI, the lesion shows low-signal intensity in T1 and high-signal intensity in T2. Some authors stated that high-signal intensity is shown in T1 and not in T2. These discrepancies may be related to the ratio of fibrous/myxoid tissue, the viscosity, the concentration of proteins, the presence of hemorrhage and hypocellularity (3).

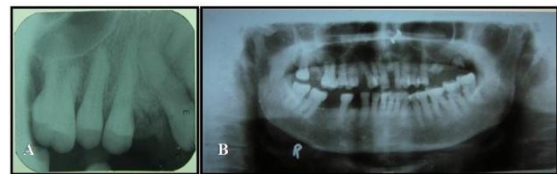


Fig 2: A- Intraoral Periapical view showing mesial displacement of canine and ragged alveolar margin between canine and premolar, B- Orthopantomograph also revealed the same features.

Histologically, fibromyxoma presents as large amount of intercellular substance rich in acid mucopolysaccharides with loose myxomatous connective tissue, fibroblasts and myofibroblasts. Woven bone and capillaries may also present (3).

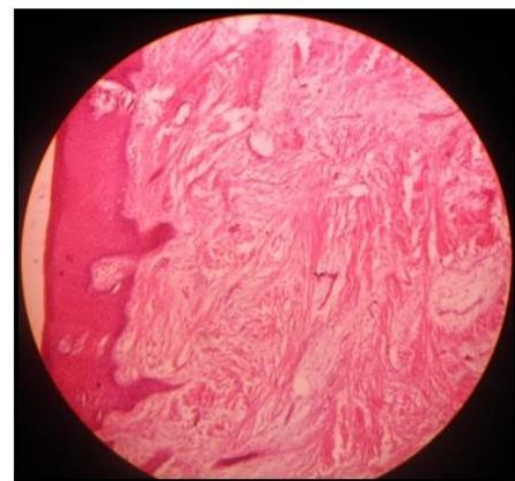


Fig 3: Histopathologic impression



Stellate, spindle-shaped cells into a loose myxoid extracellular matrix with cells presenting with thin, long cytoplasmic prolongations gives the histologic impression for immature mesenchyme. Loci of calcification or ossification may present. There is higher amount of collagen fibres and vessels present than a typical myxoma (6). Immunohistologically, fibromyxoma exhibits cells positive for actin which suggests that myofibroblasts play a vital role in cell proliferation in the pathogenic process of fibromyxoma (5,6).

Treatment of fibromyxoma depends on size and location of tumour. Small tumour may be treated with curettage, but large tumour may require surgical resection. Recurrence of the tumour generally does not occur (3). In the long bones the tumour is frequently malignant and tends to recur with great frequency after removal, but fibromyxomas of the jaws appear to have a better prognosis (3).

IV. CONCLUSION

Maxilla is a rare location for fibromyxoma, specially incisor to canine region. Clinical, radiological and histopathological features play important role to conclude the diagnosis. Complete surgical excision should be done to avoid recurrence.

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