Odontogenic Myxoma of the Maxilla-A Case Report

Bhagavan Komary Gowda, MDS; Sinhasan Sankappa P, MD, DNB; Manjula C.G, and Rosamma George

Abstract: Myxomas are uncommon ectomesenchymal tumors which are believed to arise from odontogenic ectomesenchyme and they bear a close microscopic resemblance to mesenchymal part of a tooth germ. The common age of presentation is in second or third decade of life. Because of its slow growing nature, the average time between first symptoms and treatment is between 1 and 5 years. The treatment for odontogenic myxoma remains controversial. It varies from simple enucleation and curettage to more aggressive enbloc resection. Here, we present a case of odontogenic myxoma of maxilla, in a 25 year old lady, with a brief review of pathogenesis, clinical, radiological, histopathological characteristics and the treatment given to her.

Keywords: Odontogenic myxoma, Maxilla, Surgical excision

Introduction:
Myxoma is a rare benign locally invasive and non metastasizing neoplasm of mesenchymal origin. Most frequently occurring in the second and third decades of life. These tumors are slow growing, invasive and patient usually complains of painless, enlarging lump with mobility of teeth and facial asymmetry, delayed eruption of teeth, disturbance of speech and mastication, pain, paresthesia and oral mucosal ulceration. On histopathological examination, they are characterized by small innocuous spindle shaped cells appearing in an abundant mucoid/ myxoid stroma.

Case Report:
A 25 year old female patient presented with a complaint of a slow growing swelling of upper jaw for the last two years. On examination, a smooth, firm, non tender, immobile swelling measuring 5x3 cm was seen on the palatal aspect of left maxilla extending from the upper left second premolar to the second molar (Fig 1). All the mentioned teeth were mobile. No cervical lymphadenopathy seen, no bony expansion was noticed.

Fig 1. Pre-operative soft tissue swelling seen on the palatal aspect of left maxilla.

Routine hematological investigations were normal. Para Nasal Sinus view of the skull was taken which revealed no significant radiological changes associated with the sinuses. A
provisional diagnosis of soft tissue tumor of the palate was made and an incisional biopsy was performed which on histopathological examination revealed odontogenic myxoma of the maxilla. Surgical excision and curettage of the tumor was performed under local anaesthesia followed by extraction of upper left second premolar, first molar and second molar. Primary closure was achieved. The specimen (Fig 2) on gross examination showed grayish white, glistening smooth, gelatinous mass. Histopathology of the tumor showed typical features of odontogenic myxoma containing loosely arranged stellate to spindle shaped cells within a myxoid matrix covered by odontogenic epithelium (Fig 3) interspersed with collagen bands. The loose tissue is not highly cellular and the intercellular substance revealed myxoid areas. (Fig 4).

Fig 2. Gross specimen showing grayish white, glistening, smooth, gelatinous mass.

Fig 3. Histopathology showing myxoid tumor covered by Odontogenic epithelium interspersed with collagen bands (Hematoxylin and Eosin stain, 10x magnification).
Fig 4. Photomicrograph showing hypocellular tumor with myxoid areas containing stellate to spindle shaped cells (Hematoxylin and Eosin stain, 10x magnification).

Discussion
Odontogenic myxoma is a rare benign tumor with a potential of local invasion. Though there are reports showing it to be the second commonest odontogenic tumor in many countries, only 0.5 to 17.7 % of them have been reported in Asia, Europe and America.3

Myxomas of the head and neck can be identified in two forms (1) facial bone derived, which had been sub divided in the past into true osteogenic myxoma and odontogenic myxoma and (2) soft tissue myxoma derived from perioral soft tissue, parotid gland, ear and larynx.8 Traditionally, the myxomas of the maxilla has been considered to be a neoplasm of odontogenic origin, although the evidence is mainly circumstantial, support of an odontogenic origin has been perpetuated by its almost exclusive occurrence in the tooth bearing areas of the jaws, its common association with an unerupted tooth or a developmentally absent tooth, its frequent occurrence in young individuals, its histologic resemblance to dental mesenchyme, especially the dental papilla and occasional presence of odontogenic epithelium.4

In a review of 164 cases of this tumor, 75 % occurred in second and fourth decade of life. There is no sex predilection. 7 Two thirds were located in the mandible and one third in the maxilla.5 The average time between first symptom and treatment varies from 1-5 years which is reflective of its slow growth.1 In the present case this period was of 2 years.

Radiographically, odontogenic myxoma typically presents as a multiloculated, expansile, radiolucent area with well defined sclerotic margins between teeth. Displacement of teeth by the tumor with scalloping between roots may occur. Rarely, root resorption occurs. In the maxilla, antral involvement may occur, as demonstrated by a soft tissue mass occasionally destroying the antral walls on the Water’s view.

The treatment of odontogenic myxoma remains controversial. These tumors are benign and locally invasive. It varies from simple enucleation and curettage to more aggressive enbloc resection. A conservative surgical approach which involves local excision and sparing of uninvolved structures and to allow preservation of function has been suggested. When associated with teeth, their removal is necessary. The conservative treatment was justified in the present case considering the age of the patient, absence of bony expansion and negative involvement of the maxillary sinus. The patient is followed up regularly and no signs of recurrence have been observed in the last 4 months.

Histopathologically, these lesions are characterized by loosely arranged spindle or stellate shaped cells which may have long fibrillary processes that tend to intermesh.7 At places the
tumor shows bundles of collagen fibres, islands or nests of odontogenic epithelium scattered within a myxoid matrix.

In conclusion, a complete surgical excision along with proper long term follow up is essential keeping in mind the high recurrence rate, for the successful management of the myxomatous tumor.

References:

Conflict of Interest: None.

Author Affiliation: BK Gowda is Professor and Head, Department of Dentistry; SSP is Associate Professor, Department of Pathology; MCG is Tutor, Department of Dentistry; and RG is Assistant Professor, Department of Dentistry, all from the Hassan Institute of Medical Sciences, Hassan, Karnataka, India.

Corresponding Author:
Bhagavan Komary Gowda, is Oral and Maxillofacial Surgeon, Professor and Head of Department, Department of Dentistry, Hassan Institute of Medical Sciences (HIMS), Hassan 573 201, Karnataka. India. E-mail: drbhagavanbk@rediffmail.com, cgmanjuyathi@yahoo.com, Mobile: +91 94480 25810