CASE REPORT

Odontogenic myxoma - A rare case report

Tejavathi Nagaraj, Sita Gogula, C. K. Sumana, Haritma Nigam

Department of Oral Medicine and Radiology, Sri Rajiv Gandhi College of Dental Sciences and Hospital, Bengaluru, Karnataka, India

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Correspondence:
Dr. Sita Gogula, Department of Oral Medicine and Radiology, Sri Rajiv Gandhi College of Dental Sciences and Hospital, Bengaluru, Karnataka, India.
E-mail: sita.89513@gmail.com

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Abstract

Odontogenic myxoma (OM) is a rare neoplasm unique to the jaw. In the international histological classification of odontogenic tumors, OM is defined as a benign odontogenic tumor of mesenchymal origin that is locally invasive and consists of rounded and angular cells lying in abundant mucoid stroma. Here is a case report of an 11-year-old female patient who complained with swelling in the lower right back tooth region for 1½ months with a history of swelling which was initially small and gradually increased to present size with a history of mild pain for 1 day. In this article, clinical features, radiologic features, and differential diagnosis are discussed briefly.

Introduction

Rudolf Virchow first described Myxofibroma in 1863. It arises from odontogenic ectomesenchyme, i.e., dental follicle, dental papilla, and periodontal ligament.[1,2]

In 1992, the WHO defined OM as a locally invasive neoplasm consisting of rounded and angular cells lying in an abundant mucoid stroma. It is a painless slow-growing tumor commonly occurring in the mandible and has less tendency to metastasis. Commonly affects the age group between 25 and 30 years mandibular posterior region is most commonly involved with more female predilection.[3]

Case Report

A female patient of age 11 years old complained of swelling in the lower right lower back tooth region for 1½ months with a history of swelling which was gradually increased in size and complained of pain for 1 day.

On extraoral examination, facial asymmetry was present with incompetent lips. Diffuse swelling presents on the right lower 1/3rd of the face measuring about 4 cm ×4 cm extending superiorly 3 cm below the ala-tragal line, inferiorly to inferior border of the mandible, anteriorly to parasymphysis region, and posteriorly 3 cm in front of the angle of mandible, and the overlying skin was normal. On palpation, swelling was tender, firm to hard in consistency, and no local raise of temperature. Submandibular lymph nodes on the right and left side were palpable firms in consistency roughly oval in shape, tender mobile measuring about 1 cm ×1 cm.

On intraoral soft examination, solitary overgrowth presents on the right alveolar, region, and buccal vestibule measuring about 4 cm ×3 cm extending from distal surface of 43 to mesial surface of 85 obliterating the buccal vestibule with both buccal and lingual cortical expansion, color of the mucosa appeared erythematous as shown in Figure 1. On palpation, the swelling was non-tender, firm, and a provisional diagnosis of peripheral ossifying fibroma of the right buccal vestibule and alveolar region with differential diagnosis of peripheral giant cell granuloma, ameloblastic fibroma, and odontogenic myxoma (OM) cemento-ossifying fibroma.

Hard tissue examination revealed grade II mobility irt to 42 and preshedding mobilitity of deciduous teeth i.e., 85.

Orthopantamograph was taken which revealed well-defined radiolucency measuring about 7 cm × 4 cm extending from 33 to mesial surface of 46 with septae within the radiolucency giving multilocular radiolucency displacing 43 toward inferior border of mandible as shown in Figure 2.

Mandibular occlusal view revealed multilocular radiolucency present measuring about 7 cm × 4 cm extending from 85 to 32

Figure 1: Intraoral picture

Figure 2: Orthopantamograph

with expansion of buccal cortical plate having septae internally giving a multilocular appearance as shown in Figure 3.

On biopsy, Hand E-stained section showed stratified squamous epithelium with broad rete ridges. Underlying connective tissue was loose myxomatous in nature composed of sparse collagen and randomly oriented stellate cells with long fine, anastomising eosinophilic processes extending from centrally placed nuclei. Islands of odontogenic epithelium are present. Tissue was minimally vascularized and moderately infiltrated with chronic inflammatory cells and predominantly plasma cells suggestive of OM i.r.t right mandible.

Discussion

Odontogenic tumors are rare tumors seen in the jaws that are non-encapsulated, benign in nature, and locally aggressive. It is a slow-growing painless mass which causes facial asymmetry.[4] Pain and paresthesia are seen when the tumor is impinging on the neurovascular canal.[4] Root resorption is rarely seen but frequently associated with loosening and displacement of teeth.[5] Radiographically, it appears unilocular to multilocular in appearance having specific radiographic features such as "honeycomb," "soap bubble," "tennis racket," "Wispy," and "spider web" appearance.[3,6]

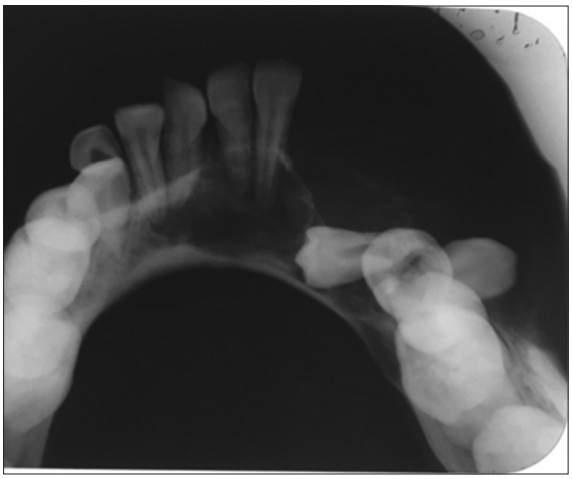

Figure 3: Mandibular occlusal view

Recently in literature, the aggressive nature is well documented, and the surgical approach of OM is the best treatment.[7,8] Radiotherapy does not play any role as this tumor is not radiosensitive.[9] The high recurrence rate is due to non-encapsulated nature and infiltrative growth.[10] Grossly, it appears as white gelatinous, mucoid, and slimy material covered by eggshell patches of bone.[11] Even though local recurrences is more, the overall prognosis is good.[12]

Conclusion

The diagnosis of OM was done by clinical presentation and radiological features. Recurrence rates are high and a long follow-up period over years is essential after treatment for patients with these tumors. Due to aggressive behavior of these tumors, regular follow-up is absolutely necessary in the cases of OMs.

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