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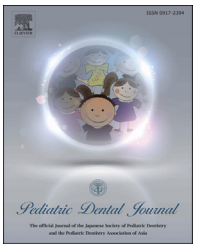

Case Report

Myofibroma of the mandible – Case report

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ABSTRACT

Background: Myofibroma is a benign mesenchymal neoplasm consisting of myofibroblasts proliferation. It is uncommon in the oral cavity and only a few cases were reported about the solitary myofibroma within the mandible.
Methods: This article is reporting a case of central myofibroma involving the right side of the mandible of a 13-year-old girl with the clinical, radiologic, histological and immunohistochemical management for diagnosis and treatment.
Results: The clinical and imaginological aspects suggested a widespread odontogenic and non odontogenic lesions In the histopathological examinations, a biphasic pattern of the spindle and round-shaped cells was revealed. Immunohistochemical reaction was shown as positive diagnosis to Smooth Muscle Actin. These findings indicated the myofibroblastic nature of the cells. Our results provided the diagnosis of myofibroma.
Conclusion: The clinical, imaginological and histological features indicated that the uncommon intraosseous myofibroma should be considered in differential diagnosis of widespread odontogenic and non odontogenic intraosseous mandibular lesions.

1. Introduction

Myofibroma is a rare, benign spindle-cell neoplasm that presents as a solitary or multiple tumors [1]. In both types, the dermis, subdermis, and striated muscle tissues, mainly in the head and neck region are the most affected sites. Internal organs, such as lungs, kidneys, pancreas and gastrointestinal tract can also be involved [2]. Solitary tumors are more

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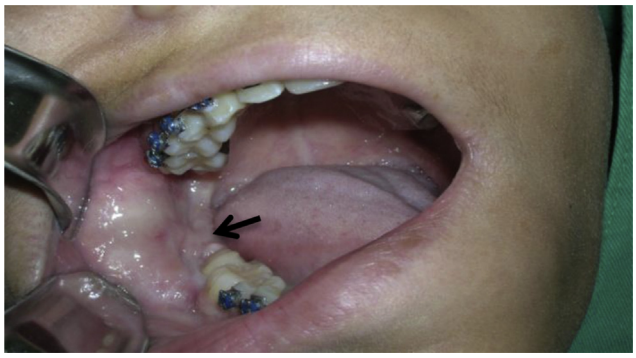

Fig. 1 – Clinical view – A discreet swelling at the lower right third molar region with no oral mucosa alteration (arrow).

prevalent in children and young adults although they occur over a wide age range and demonstrate predilection to the soft tissues of the oral and maxillofacial region, especially tongue, lips, buccal mucosa and floor of mouth [1–3]. Hard-tissue involvement in this region is less common, with the majority of tumors affecting the mandible as compared to the maxilla [1]. Intraosseous lesions are more observed in childhood [3].

Central myofibromas of the jaw have the potential to affect the teeth and other odontogenic structures. The lesions in such cases may exhibit clinical or radiographic features suggestive of an odontogenic tumor or cyst, such as ameloblastoma, odontogenic keratocyst tumor, dentigerous cyst or a central benign and malignant neoplasms, so the diagnosis sometimes represent a challenge. Tooth mobility, displacement of teeth, jaw expansion, and odontogenic-like or referred pain symptoms may also be observed [1]. The clinical behavior of this tumor is quite variable. Most of them have a slow and limited growth. When they exhibit rapid growth and premature ulceration, they resemble malignant conditions [4].

2. Case report

A 13-year-old girl was referred to the Oral Medicine Ambulatory at the PUC-Minas School of Dentistry to be evaluated about a painless small growth in the posterior region of the right side of the mandible, noted over a year. None alteration was observed in the extraoral exam. The intraoral exam showed a well-delimited 1.5 to 2.0 cm nodule, with firm consistency and similar color to the oral mucosa, localized in the distal region of the lower right second molar which showed lingual inclination and no mobility (Fig. 1). Periapical and panoramic radiographic exams revealed a radiolucent well defined unilocular lesion, suggesting an involvement with the non erupted right third molar crown. Occlusal radiographic image showed a mandibular cortical bone expansion more accentuated to the buccal region (Fig. 2). Computed tomography revealed a round-shaped well-defined and expansive hipodense image, measuring approximately 2.5 × 1.5 cm in cross sectional diameters involving the second molar root and extending to near the crown of the right mandibular third molar.

An incisional biopsy was performed under local anesthesia. Light microscopy evaluation of routine hematoxylin-eosin-stained sections revealed a mesenchymal lesion composed of spindle-shaped cells in a background variably collagenous to myxoid connective tissue demonstrating rich vascularity and scattered chronic inflammatory cells (Fig. 3). The tumoral cells were organized in biphasic patterns: ovoid-to-spindled cells with little cytoplasm, organized frequently in alternative fascicles; smaller and round cells with an

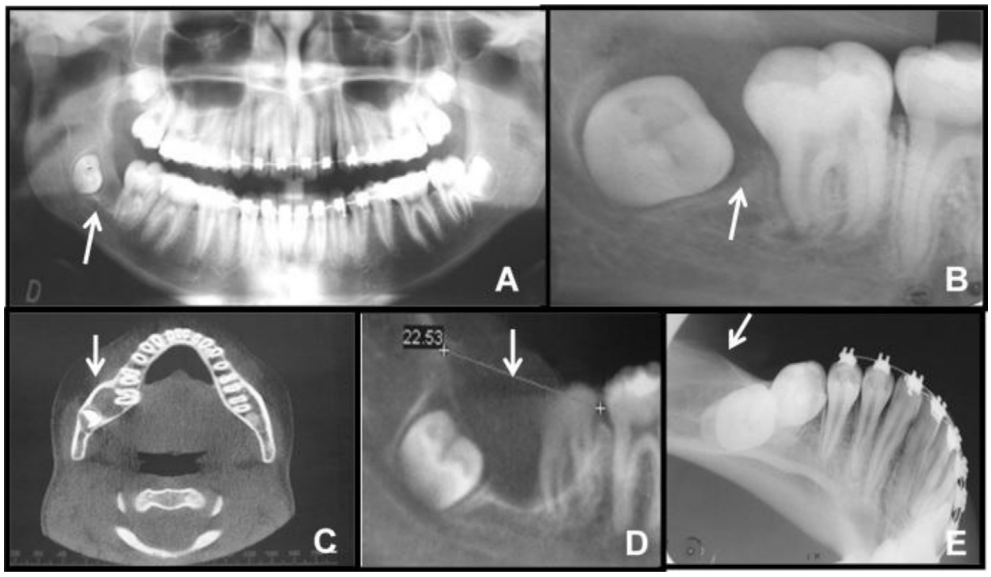

Fig. 2 – Radiografic aspects. A – B, Panoramic and periapical images showing a well–defined unilocular radiolucent lesion involving the lower right third molar crown. C – Axial CT demonstrating buccal and lingual cortical expansion. D- Panoramic reconstruction showing hipodense image involve the lower right third molar crown and the root of the lower right second molar. E- Oclusal radiography showing 30 days postoperative aspect.