

# Hybrid Central Odontogenic Fibroma with Giant Cell Granuloma-like Lesion: A Case Report

Omneya R. Ramadan<sup>1</sup>, Marwa M. Essawy<sup>2</sup>

<sup>1</sup> Assistant Professor, Oral Pathology Department, Faculty of Dentistry, Alexandria University, Egypt.

<sup>2</sup> Fellow, Oral Pathology Department, Faculty of Dentistry, Alexandria University, Egypt.



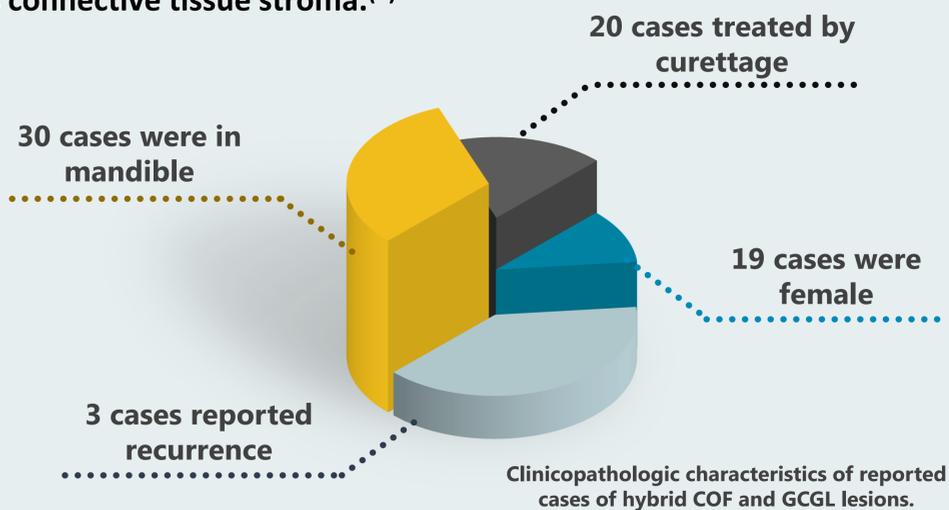
## INTRODUCTION

Central odontogenic fibroma (COF) is a rare odontogenic tumor characterized histologically by the presence of variable amounts of inactive odontogenic epithelial rests scattered within a mature fibrous connective tissue stroma.<sup>(1)</sup>

Histologic variants of COF are:

- Granular cell odontogenic fibroma.<sup>(2)</sup>
- Odontogenic fibroma with pleomorphic fibroblasts.<sup>(3)</sup>
- Odontogenic fibroma with giant cell reaction.<sup>(4)</sup>

A hybrid lesion comprising of COF with an associated giant cell granuloma-like lesion (GCGL) component is very rare and was first reported in 1992 by Allen *et al.*<sup>(5)</sup> Since then a total number of 32 COF with GCGL cases were published.

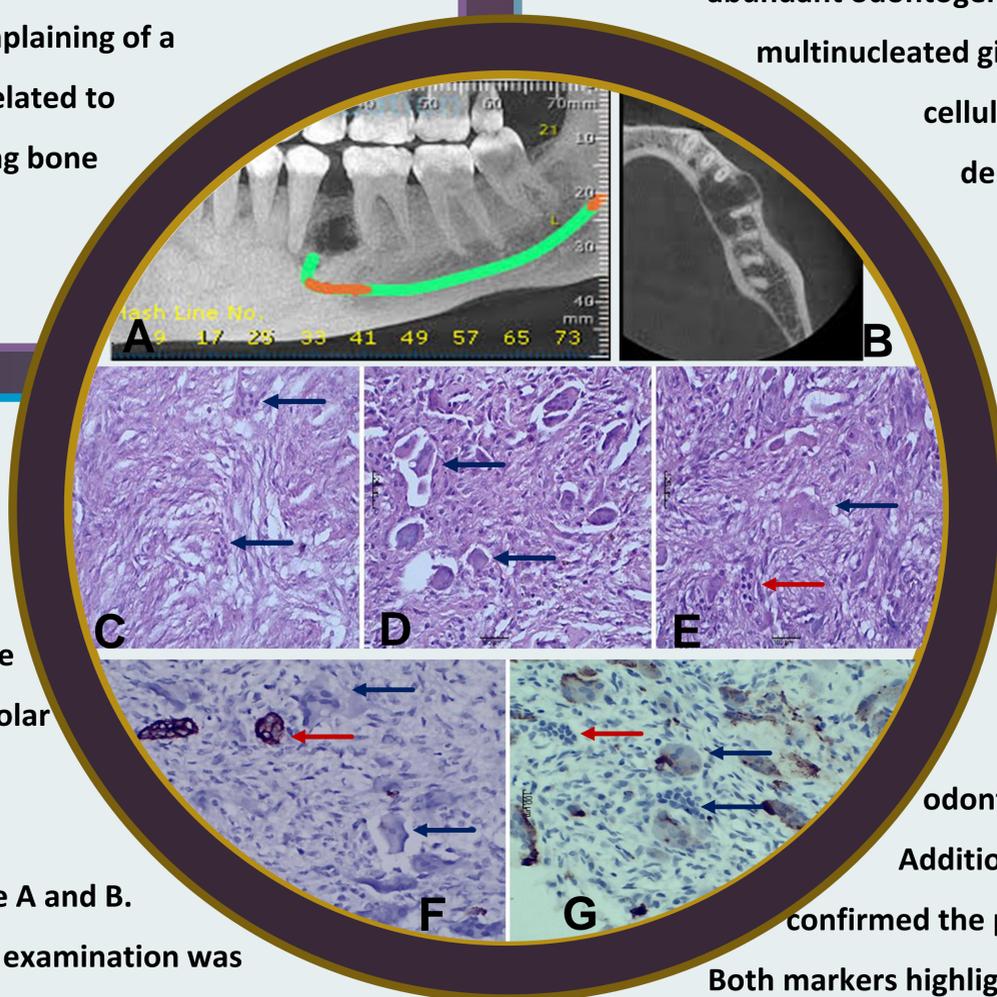


## Clinical presentation 01

We here report the case of a 33-year-old woman who presented to the Oral and Maxillofacial Surgery Department, Alexandria University, Egypt complaining of a 2 x 2 cm hard painless swelling related to mandibular left premolars causing bone expansion, since one year. The associated teeth were vital.

## Radiograph 02

The lesion caused a large unilocular radiolucent defect in the body of the mandible at the premolar-molar area. Neither root resorption nor teeth displacement was detected, Figure A and B. The rest of the oral and extra-oral examination was unremarkable. The case was provisionally diagnosed as lateral periodontal cyst or keratocyst.



## 03 Histopathologic examination

The section showed fibrous tissue infiltrating between the bony trabeculae. The lesional tissue showed a prominent blend of abundant odontogenic epithelial rests (→) with many multinucleated giant cells (MNGCs; →) (in a highly cellular connective tissue stroma, with dense collagenous fibers, showing a whorled pattern, Figure C-E. Osteoid deposits were present. An initial diagnosis of COF with GCG-like lesion was made.

## 04 Immunohistochemistry

Pan cytokeratin stain showed granular cytoplasmic positivity of odontogenic epithelium (→), Figure F. Additionally, positive reactivity for CD68 confirmed the presence of MNGCs (→), Figure G. Both markers highlight the amalgam of COF & GCG components, as indicated by the mixture of abundant positive odontogenic epithelial rests mixed with many MNGCs in a highly cellular fibrous connective tissue stroma.

## ACKNOWLEDGMENT

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