

Giant Cell Reparative Granuloma

Published on 17.01.2001

DOI: 10.1594/EURORAD/CASE.818

ISSN: 1563-4086

Section: Musculoskeletal system

Imaging Technique: CT

Imaging Technique: MR

Case Type: Clinical Cases

Authors: V. Lens, D. Janssens, N. Calteux

Patient: 7 years, female

Clinical History:

Referred because of slow growing mass within the mouth at the posterior part of the left superior maxillary arch.

Imaging Findings:

The patient was referred because of slow growing mass within the mouth at the posterior part of the left superior maxillary arch. A mild swelling was noted in the region of the left cheek. Five days before admission, she had an extraction of tooth 64. No history of facial trauma was reported. Laboratory examinations were within normal limits. Plain film radiography, CT scan and MRI were performed.

Discussion:

Giant cell reparative granuloma represents 10% of all benign tumors of the jaw. The pathogenesis is unknown but it is thought to be a reactive process in response to intraosseous hemorrhage. It is a slow growing tumor with a variety of clinical manifestations such as pain, swelling and headache. The lesion is tender to palpation. This bony lesion is almost always located in the alveolar rather than in the basal bone of the jaw and it is more commonly located in the mandibular bone than in the maxillary bone. Involvement of temporal bone, ethmoid, sphenoid, condyle of the mandible, carpal and tarsal bones by giant cell reparative granuloma is rare. In the jaw, the lesion demonstrates female preponderance and usually affects young patients. Radiologically, the lesion has a bubble-like appearance. It is usually round or oval and well delineated. It may contain calcifications. This appearance is nevertheless seen in various lesions of the jaw and there are no pathognomonic radiological findings of giant cell reparative granuloma. Radiologically and histologically the tumor is indistinguishable from the brown tumor seen in hyperparathyroidism. In this condition, only laboratory data help to make the final diagnosis. The lesion has no tendency to recur after surgical treatment and there is no evidence of malignant transformation.

Differential Diagnosis List: Giant Cell Reparative Granuloma

Final Diagnosis: Giant Cell Reparative Granuloma

References:

Peterson LJ, Indresano AT, Marciani RD et al. Principles of oral and maxillo facial surgery. J.B. Lippincott Company Philadelphia 1992; 727-729.

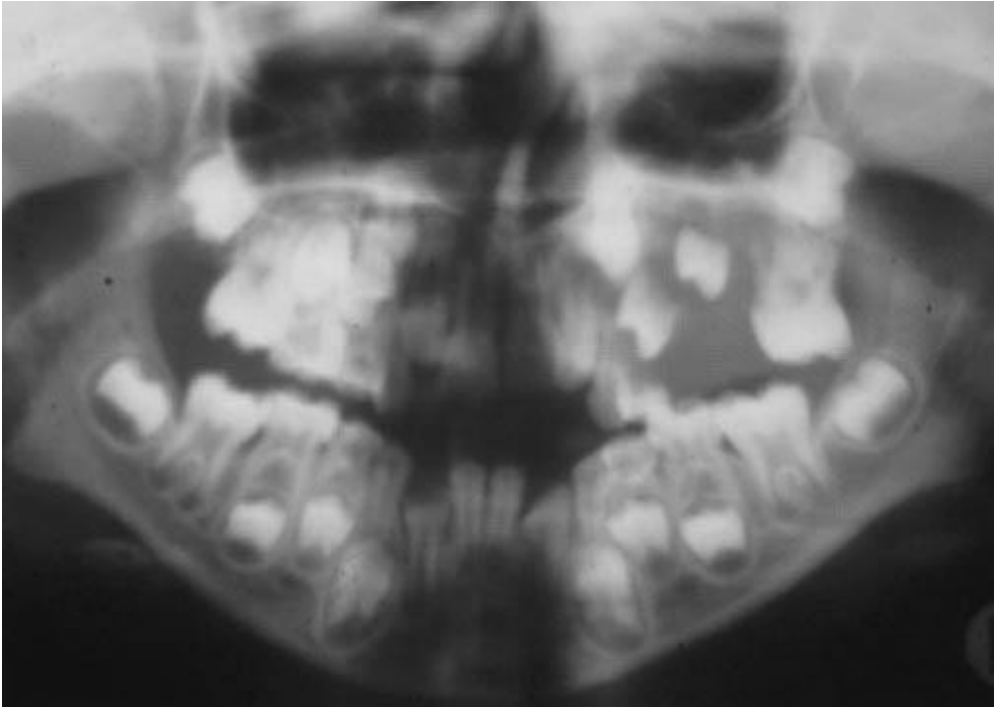
Resnick D, Kyriakos M, Greerway G. Tumors and tumor-like of bone: imaging and pathology of specific lesions. The giant cell reparative

granuloma. In Resnick D, Niwayama G. Diagnosis of Bone and Joints Disorders. Second edition. Philadelphia, PA:

Saunders 1988; 3776.

Figure 1

a



Description: Osteolytic lesion at the left superior maxillary bone protruding into the left maxillary sinus and buccal cavity. The lesion displaces the dental germs **Origin:**

b



Description: Mildly enhancing lesion of the superior maxillary bone with bubble-like appearance. Dense linear calcifications can be seen within this mass. **Origin:**

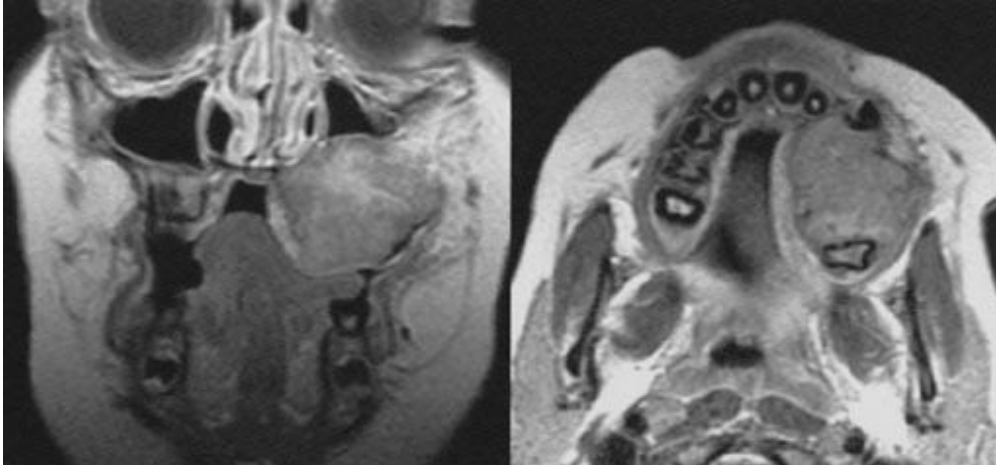
Figure 2

a



Description: Coronal T2 weighted image (left) and T1 weighted image (right) show a mass expanding into the left maxillary sinus with erosion of the lateral sinus wall and the maxillary bone. **Origin:**

b



Description: After Gadolinium enhancement, coronal (left) and axial (right) T1 weighted images show an encapsulated heterogeneously enhancing mass into the left maxillary sinus with erosion of the lateral sinus wall and the maxillary bone. **Origin:**