Scholars Journal of Medical Case Reports

Abbreviated Key Title: Sch J Med Case Rep ISSN 2347-9507 (Print) | ISSN 2347-6559 (Online) Journal homepage: <u>https://saspublishers.com</u> **∂** OPEN ACCESS

Radiology

Maxillary Aneurysmal Bone Cyst: About a Case

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DOI: 10.36347/sjmcr.2023.v11i04.039

| **Received:** 25.02.2023 | **Accepted:** 11.04.2023 | **Published:** 18.04.2023

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Abstract

Original Research Article

Introduction: Aneurysmal bone cyst (ABC) is a primary or secondary benign tumor, consisting of an intraosseous cavity, uni or multilocular, with hematic content. It can develop on all bones of the skeleton with, however, a predilection for the long bones and the spine. KOA mainly affects children and young adults, with a slight female predominance. **Objective:** The aim of this work is to reveal the diagnostic features at the imaging level. **Case Report:** This is an 11-year-old female patient with no previous pathological history who has presented for 1 year with diffuse maxillofacial pain, with intermittent fluid discharge in the oral cavity. Facial CT scan without and with contrast injection objective a lytic image centered on the lateral wall of the left maxillary sinus bulging into the sinus lumen with a spontaneously hypodense multicompartmental appearance without contrast gain after PDC injection. **Conclusion:** KAO is a very polymorphic lesion, which presents a diagnostic problem (Aspecific radiological appearance). In spite of the different therapeutic modalities proposed, it is the surgical treatment which exposes less risk of recurrence.

Keywords: Aneurysmal bone cyst (ABC), intraosseous cavity, maxillofacial pain, oral cavity. Copyright © 2023 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC 4.0) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.

INTRODUCTION

Aneurysmal bone cyst (ABC) is a primary or secondary benign tumor, consisting of an intraosseous cavity, uni or multilocular, with hematic content. It can develop on all bones of the skeleton with, however, a predilection for the long bones and the spine. KOA mainly affects children and young adults, with a slight female predominance.

OBJECTIVE

The aim of this work is to reveal the diagnostic features at the imaging level.

MATERIALS AND METHODS

This is an 11-year-old female patient with no previous pathological history who has presented for 1 year with diffuse maxillofacial pain, with intermittent fluid discharge in the oral cavity.

RESULTS

Facial CT scan without and with contrast injection objective a lytic image centered on the lateral wall of the left maxillary sinus bulging into the sinus lumen with a spontaneously hypodense multicompartmental appearance without contrast gain after PDC injection.



Figure 1: CT of the facial mass in axial and sagittal section lytic image centered on the lateral wall of the left maxillary sinus bulging into the lumen of the sinus with a multicloisonné appearance

DISCUSSION

KOA is a benign tumor of children and young adults. It can develop on all bones of the skeleton. However, there is a predilection for long bones and the spine.

Aneurysmal cysts are relatively rare in the maxilla, with less than one hundred cases reported in the literature.

Metaphyseal localization is frequent, eccentric in 90% of cases.

Isolated diaphyseal location is rarer (8%).

Standard Radiography:

KOA realizes a lytic and expansive lesion sometimes giving a characteristic "ballooned" appearance, blowing the cortex and containing trabeculations.

CT: Shows a lytic image that is sometimes septate with clear boundaries with or without peripheral condensation, with evidence of liquid-liquid level.

MRI: It is more discriminating than CT and the association of the following signs would be suggestive of KAO: Tumor hyper signal in T2 (liquid component); Clear tumor boundaries; Peripheral border in T1 and T2 hyposignal corresponding to osteocondensation. A tumor septum in T1 and T2 hypersignal enhancing after gadolinium injection.

CONCLUSION

KAO is a very polymorphic lesion, which presents a diagnostic problem (Aspecific radiological appearance). In spite of the different therapeutic modalities proposed, it is the surgical treatment which exposes less risk of recurrence.

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