

ANOREXIA REVEALING A MANDIBULAR BONE CYST ABOUT A CASE**Dr. Kaukone Nyare Raissa Albertine*, Siham El Haddad, Nazak Allali and Latifa Chat**

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ABSTRACT

The aneurysmal bone cyst (KOA) is a primary or secondary benign tumor, consisting of an intraosseous cavity, uni or multilocular, with hematic content. It can grow on all skeletal bones with, however, a predilection for long bones and the spine. KOA mainly affects children and young adults, with a slight female predominance - (1) KOA is a rare, expansive, osteolytic, pseudocystic lesion. Its symptomatology is not specific. Two to 5% of cases are Mandibular (between 75% and 100% of maxillary locations), or about 1% of all mandibular cysts. (2°) Prognosis of this lesion which lyses the bone aggressively and which can simulate a tumor. The treatment of choice is broad resection with immediate reconstruction if bone stability is compromised. KOA can be observed at any age and its prognosis remains generally good. Imaging work-up is recommended before performing a biopsy, which remains essential for confirmation of the diagnosis (1) We report the case of an 18-year-old patient who consulted for cachexia, bulimia, dysarthria, vomiting without any other particular history. The purpose of the presentation of this case was to identify the diagnostic peculiarities of CT AND MRI correlations

KEYWORDS: ANEURISMAL BONE CYST, MANDIBLE -CT-MRI.**DISCUSSION**

According to the WHO (2002) definition, aneurysmal bone cyst (KOA) is a benign cystic lesion of the bones, consisting of blood-filled cavities, separated from each other by connective tissue septum containing fibroblasts, cells giant osteoclastic and a more or less abundant reactive trabecular bone.^[1] The KOA was first described in 1942 by Jaffe and Lichtenstein.^[1]

It often sits in the metaphysis of long bones and the spine. Aneurysmal cyst of the maxillae. It most often occurs in young people before the age of 20 with a female predominance. The mandible in its angular and body portion is more often affected than the maxilla. is exceptional and represents 1.5% of non-ontogenic cysts.^[4] the symphyseal region is generally respected.^[5]

KOA is most often manifested by pain.^[6] In a third of cases, KOA, which involves local aggressiveness, causes a rearrangement of the cortices which are puffed out and thinned; KOA can be the cause of a pathological fracture.^[7]

There are so-called solid KOA: in these cases, there is a reaction osteogenesis which gives spans of osteoid substance with a variable degree of calcification: this would explain their good prognosis and the possibility of recovery without recurrence in some cases, even when the resection was not complete.^[8]

The KOA is often compared to a sponge whose cavities are filled with blood. It is not a real tumor, nor a cyst, nor a real aneurysm, but it probably corresponds to a reaction process.^[9]

It constitutes a pseudo-cyst and its prognosis remains good overall, although a few cases of malignant transformations have been described.^[6]

For Jaffe and Lichtenstein,^[9] KOA represents a reactive bone lesion, secondary to hemodynamic disturbance due to an increase in venous pressure following thrombosis or abnormal arteriovenous communication. Bieseker et al. hypothesized that KOA would be secondary to a pre-existing arteriovenous fistula: the resulting hyperpressure would lead to bone resorption.^[10] For Campanacci and Ruggieri, it would be tissue repair after local hemorrhage, which would explain the development of KOA after fracture in healthy or pathological bone.^[11]

The lesion can be painful (between 2 and 4% of cases) or interfere with chewing Limitation of oral opening or dysfunction of the temporomandibular joint may reveal condylar localization.^[2] The fracture is rarely a circumstance of discovery.

The Clinic

The clinical signs are not specific, and are dominated by bone swelling, firm, painless, slowly evolving which can

induce tooth displacement. Teeth remain alive and not rhizalized. We sometimes find episodes of rapid increase in the volume of the swelling corresponding to the intrusion of the cortex, which poses the problem of diagnosis palpation.^[2]

The mandibular cortices remain thick. An "eggshell crackle" and "ping-pong ball" bone flexibility characterize thinned cortices. When the cortices are destroyed, the consistency is firm. The mucous membrane opposite is often Normal. The lesion does not adhere to the skin and deep planes. Auscultation is silent and the tumor does not beat on palpation.^[2]

Inferior alveolar nerve alterations (dental hypo- or anesthesia or labiomental) are seen in approximately 4% of cases.^[6] Dental displacements that may require avulsions are noted in 4% of cases.^[6] There is no associated lymphadenopathy.

The migration of the cyst therefore does not depend only on its activity, the most frequent cause is pubertal growth. KOA evolves in several phases of maturation with a radiological aspect specific to each phase.^[14,15]

Figure 1: KOA maturation phases

- Initial lytic phase: a well-defined lytic zone often appears in an eccentric or subperiosteal position. the edges are usually clear without peripheral condensation border with the possibility of permeative osteolysis, peripheral depending on the aggressiveness. The lesion matrix is homogeneous, without calcification or septa, of the "cystic" type
- Active expansion phase: this is the typical "blowing" appearance of the KOA which has entered an aggressive phase (stage 3 of Enneking). At this stage, KOA is often difficult to differentiate from a malignant lesion. The periosteum can be pushed back towards the soft parts but there is no peripheral periosteal ossification yet. There may be Codman triangles. The line between KOA and soft tissue is not clear;
- Stabilization phase: there is a peripheral bony shell that appears and internal partitions resulting in the "soap bubble" appearance. The periosteum has formed bone that circumscribes the cyst with a thin border. A Codman triangle is often visible on the diaphyseal side of the periosteal detachment;
- Healing phase: progressive ossification of the KOA resulting in a dense bone mass of irregular structure. The peripheral shell and the septa have thickened. The outlines are sharper. The KOA enters its latent phase (stage 1 of Enneking). At this stage, recurrence is no longer possible. KOA is usually detected during the expansion or stabilization phase (phases 2 or 3). Cure is usually obtained after treatment, but spontaneous cures have already been reported.^[16]

The Paraclinic

The dental panoramic often shows a radio-transparent unilocular or multilocular gap with clear edges, bordered by a fine border of osteocondensation

At TDM

The characteristic sign of this lesion is its local aggressiveness, which causes destruction

Extensive, with a blown cortex and thinned to the level, but without intrusion Periosteum.^[6]

The radiological appearance of the aneurysmal cyst is not specifically very variable: it may be a unilocular or multilocular lacunar image, unilocular or multi-cystic in "soap bubbles", with or without a periosteal reaction. Newly formed bone can form a peripheral shell similar to that of a subperiosteal hematoma.^[5]

The tomodensitometric examination makes it possible to assess the extent of bone lysis and to show the Cortical blowing for advanced lesions.^[3]

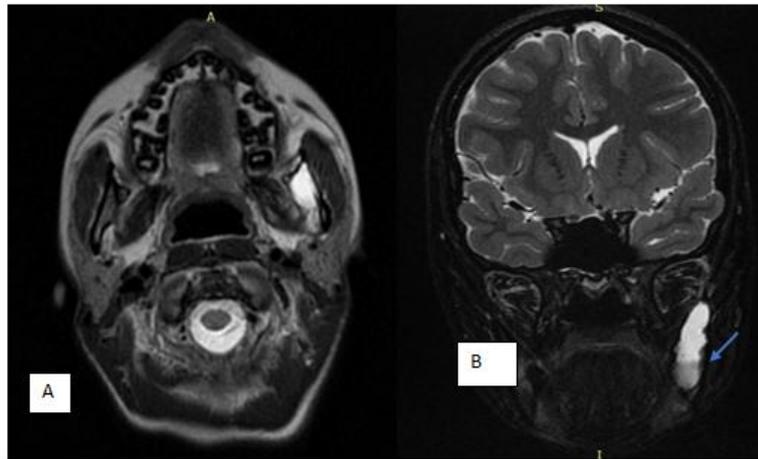
MRI

The lesion presents multiple water levels corresponding to the lower hematic deposits with a plasma supernatant in the different cavities.

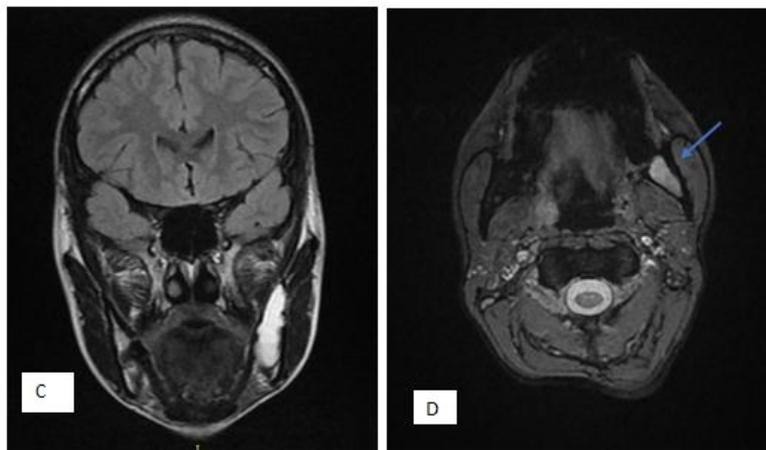
In MRI, these levels also appear in the form of lower deposits of intermediate signal in T1 and T2, overhung by the hypointense plus fluid content in T1 and very hyper-intense in T2. Elsewhere, the content may be more Heterogeneous. The injection of contrast agent enhances the lesion. This contrast enhancement is more visible in a very rare variety of aneurysmal cyst called solid form in which the cavity component is absent; the CT appearance is then very close to that observed in giant cell granulomas.^[17-18-19]

Liquid levels are present in 66% to 84% of cases.^[20-21] The presence of liquid levels is absolutely not specific to KOA.^[22]

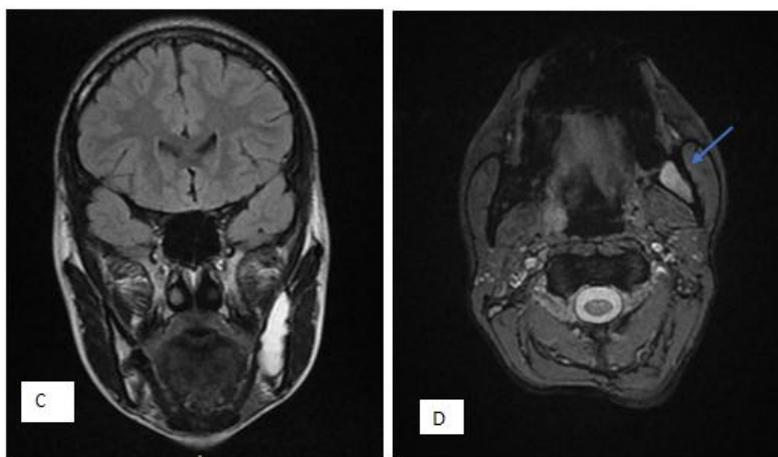
It is simply a reflection of the presence of liquids of different densities. In the case of blood, the cellular component sediments due to its higher density and plasma forms the upper layer. These levels are oriented according to the patient's position (supine, prone, etc.). Other lesions such as fibrous dysplasia, simple bone cyst, malignant fibrous histiocytoma, osteosarcoma, can also form fluid levels.^[22] Liquid levels are mainly present in the expansion and stabilization stages but absent in the initial stage.^[20] The presence of multiple cubicles separated by intracystic partitions is much more constant (100% of cases).^[23]



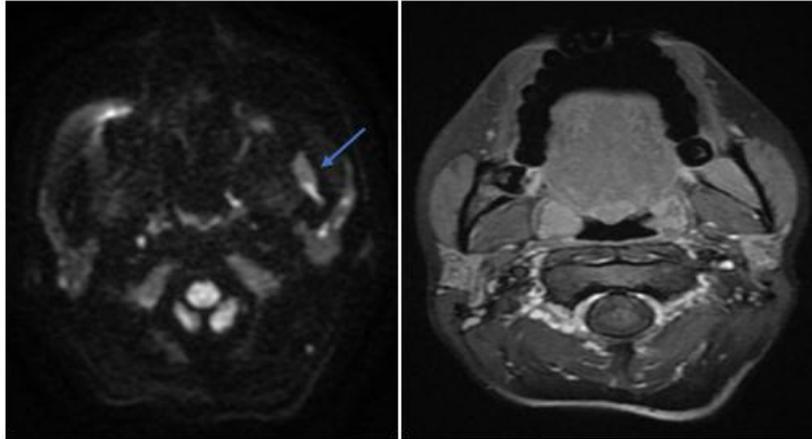
MRI appearance in favor of a hydro-aeric level in axial and coronal T2 sequence of the left mandible



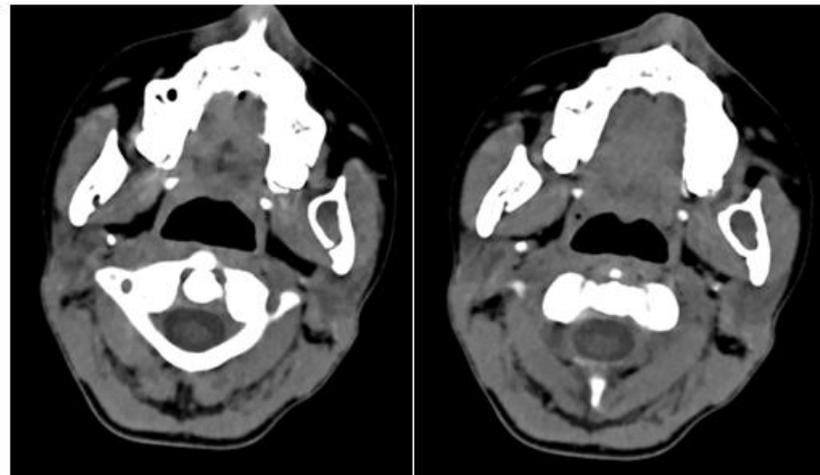
T1 hypersignal and T2 sequence



T1 hypersignal and T2 sequence



MRI diffusion sequence and T2 fat SAT found a hyperintense aspect in diffusion with the liquid-liquid level and T2 hypersignal.



Uninjected brain CT showing left mandibular lysis with cortical blistering

The Support

For treatment,^[24] radiotherapy was abandoned; it remains used for KOA above any possibility of surgical excision. The intralesional injection of corticosteroids and the implantation of partially demineralized bone particles could change the KOA from the osteolytic resorption phase to the reconstruction phase, thus avoiding invasive surgery. Kirschner wire transfixion and intracystic ethibloc injection represent little used complementary therapeutic modalities. Embolization is indicated preoperatively for very extensive lesions to avoid heavy bleeding. The purely surgical treatment consists of a simple curettage of the KOA, with or without bone graft; the frequency of recurrence is in the order of 20 to 40%. For the jawbones, treatment is usually based on simple curettage. Recurrence is rare in the mandible and usually appears within 30 months of surgical removal.^[25]

CONCLUSION

Young adults. The tumor is often painful and can be noticeable when it is blowing. The diagnosis can be probable with a simple x-ray, but magnetic resonance is often useful in the differential diagnosis. Biopsy is necessary since the aneurysmal cyst may be secondary to a malignant tumor such as telangiectatic osteosarcoma. Spontaneous recovery or after biopsies have already been reported but remain rare. Most often treatment is imperative because the lesion is expansive and destructive. As the tumor is benign, treatment that is too invasive and dilapidated should be avoided. Many minimally invasive treatments are currently available.

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