

Osteochondroma of the Mandibular Condyle: About a Case

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ABSTRACT

Osteochondroma of the temporal mandibular joint is a rare benign tumor. Through this work, we describe the clinical, radiological, and therapeutic aspects of mandibular osteochondroma.

Key words: Mandibular condyle, osteochondroma, radiology

INTRODUCTION

Osteochondroma is the most common benign bone tumor, but the facial location is exceptional. The seat at the mandibular condyle is quite rare. 90 cases have been reported.^[1] The appearance on imaging, especially in computed tomography (CT), is characteristic, but the diagnosis of certainty is histological. Through this work, we describe the clinical, radiological, and therapeutic aspects of mandibular osteochondroma.

OBSERVATION

She is a 50-year-old woman (B.R) with no notable pathological history admitted to the hospital for asymmetry of the face, with left lateral deviation, in the absence of mass syndrome or limitation of opening or closing of the mouth on clinical examination. Our patient benefited from a facial CT scan in our formation that showed a corticalized bone hypertrophy of the medial edge of the right mandibular condyle creating a neoarticulation.

Bone scintigraphy favors an outbreak of hyperemia and hyperfixation of the infratemporal and the right mandibular region in relation to joint conflict.

Our patient underwent right condylectomy, with microscopic examination: A polyploid mass, whose body measures 2.5 cm × 2 cm, and the base measures 1.5 cm × 1 cm. Histologically, it corresponds to a cartilaginous tissue with a thick surface and a subnormal structure. It is based on cancellous bone tissue with mature, calcified bone trabeculae with large, and congestive medullary spaces. This without cellular atypia nor abnormal mitosis: without atypia or mitotic activity. The whole of the histological examination is in favor of a macroscopic appearance of exostosis, in the absence of sign of malignancy [Figures 1 and 2].

Axial, coronal, and MPR reconstruction tomography showing a medial mass of the condyle head, with a well-defined peripheral cortex and an internal bone structure continuing with the right mandibular condyle.

Operative part which contained the condyle and the lesion.

DISCUSSION

Osteochondroma constitutes 8–12% of primary bone tumors, often discovered before the age of 20 =Osteochondroma: 8-12% of primary bone tumors.The average age is before 20 years. It can be unique or multiple in the context of an

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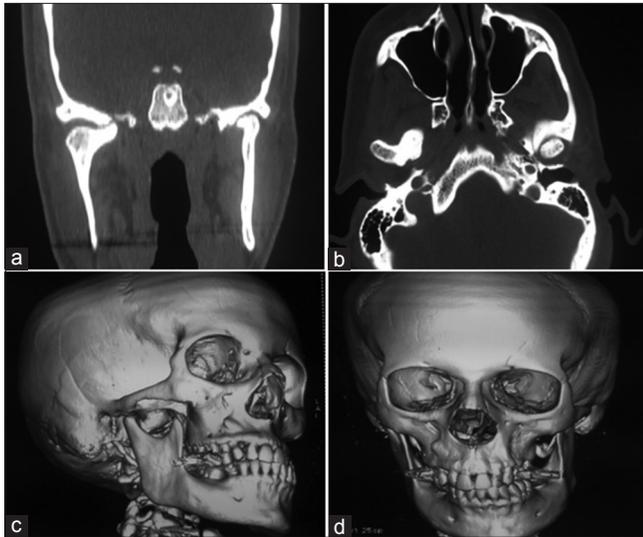


Figure 1: CT scan showing a medial mass of the condyle head, with a well defined peripheral cortex and an internal bone structure continuing with the right mandibular condyle



Figure 2: Operative part which contained the condyle and the lesion

exostosante disease. In addition, the involvement of the facial skeleton remains exceptional. Facial localization is dominated by mandibular condyle involvement. The tumor consists of a peripheral cortical, a central cancellous bone, and a cartilaginous cap. The clinic depends on the localization; however, facial asymmetry and dental occlusion disorders remain the most frequent clinical translation. Sometimes, we find a hard and painless pretragic swelling. While limitation of mouth opening remains rare: The limitation of mouth opening is rare. Our observation is consistent with data from the literature, so the patient presented only asymmetrical facial, with painless left lateral deviation. Imaging is very characteristic, the panoramic radiograph is the examination for lesions of the temporomandibular joint, but this examination is not very specific. The scanner is more sensitive. It specifies the pediculated or sessile aspect of the

lesion, the bone deformations of the neighboring structures, and the maturity of the lesion (study of the cartilaginous cuff and the thickness of the lesion). Magnetic resonance imaging allows the analysis of the entire mandibular region and its reports. In T1 sequences, osteogenic exostosis has a variable appearance depending on the bone marrow, with a high signal in case of predominance of the yellow marrow, and a lower signal in case of predominance of the hematopoietic marrow. In T2 sequence, the cartilaginous cuff has a high signal, whereas the cortical elements and the calcifications are empty of signal. In our case, the mandibular CT was sufficient to carry the diagnosis.^[2,3]

The differential diagnosis is mainly with condylar hyperplasia, the fracture consolidated with malunion, and the chondrosarcoma or the cartilaginous cuff is thicker, and the matrix is inhomogeneous with a large tissue component. Condylar hyperplasia is most common in adolescents and young adults. Imaging shows an irregular condylar hypertrophy preserving the anatomical aspect, with elongation of the condylar neck.^[2]

The diagnosis of certainty is histological, with a cartilaginous capsule of the same appearance as the growth cartilage covering the bone growth.^[2] The chondrocytes appear in parallel rows, perpendicular to the surface. The deeper portion of the capsule presents enchondral ossification with production of spongy bone that mingles with the underlying normal bone tissue.^[2]

The complications are first the risk of degeneration in chondrosarcoma, fractures on pedicle exostosis, bone deformities, and those related to the mass effect of exostosis, such as vascular, medullary and radicular compressions, local compressions, and disorders of the articulated tooth in the case of a mandibular exostosis.

The treatment is surgical associated with a functional rehabilitation. The therapeutic options are multiple. They can be classified into three groups: Invasive techniques, non-invasive techniques, and conservative techniques. Since osteochondroma is a benign tumor, its treatment should be the least invasive possible.^[1] Wolford *et al.*^[3] proposed a conservative condylectomy, consisting of resection of the tumor with preservation of part or all of the condyle head.

CONCLUSION

Osteochondroma is a rare mandibular localization tumor. It must be part of the diagnostic range of facial asymmetries and disorders of dental occlusion. The positive diagnosis and the therapeutic conduct benefit from the contribution of the tomodensitometry.

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