

Case Report

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# Osteoma Osteoid, “Benign Bone Tumor”, Atypical Behavior on the Subject of a Case



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## Abstract

We present a patient (M.J.P.R) of 70 years of age, white race, normal line, married, attended in consultation of Traumatology and Orthopedics of the hospital, who consultation for pain and swelling in the carpus and right hand of 9 months of evolution. It denies traumatic antecedents. It refers to spontaneous pain, deaf and persists all day, more intense at night, which makes it difficult to sleep, initially relented with NSAID, later the pain increased to become severe, causing insomnia in the last weeks before the query.

## About a Case

We present a patient (M.J.P.R) of 70 years of age, white race, normal line, married, attended in consultation of Traumatology and Orthopedics of the hospital, who consultation for pain and swelling in the carpus and right hand of 9 months of evolution. It denies traumatic antecedents. APP of Essential Hypertension controlled with drugs and diet. It refers to spontaneous pain, deaf and persists all day, more intense at night, which makes it difficult to sleep, initially relented with NSAID, later the pain increased to become severe, causing insomnia in the last weeks before the query.



Figure 1: Initial and pre-operative biopsy.

Physical examination shows ill-defined swelling on the dorsal aspect of the carpus and right hand, more specific on

the third metacarpal, very painful on pressure, associated with redness and increased volume in the central dorsal region. The mobility of the wrist and fingers was preserved, although painful for dorsal and palmar flexion of the carpus (Figure 1).



Figure 2: Third metacarpal and invades large bone.

On the simple radiograph, a dense sclerotic lucid radius of bone is present, with bone hypertrophy that completely includes the third metacarpal and invades large bone (Figure 2). Axial tomography shows a dense sclerotic image throughout the perimeter of the third metacarpal (anteroposterior, transverse and caudal skull diameters), associated with large bone edema and its connections with trapezoids and ganchous (Figure 3). In the three-phase bone scan with technetium 99 shows an intense

focus of hypercaptation in the carpal and third metacarpal regions (Figure 4). The study by pathological anatomy concludes diagnosis of Osteoid Osteoma (Figure 5).

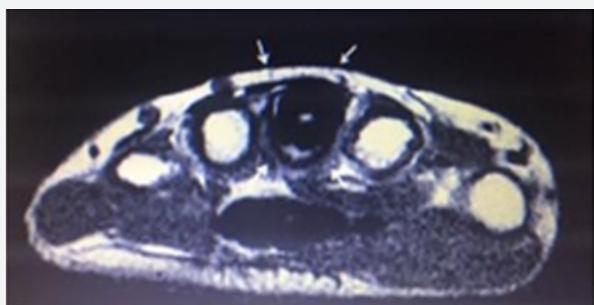


Figure 3: Axial tomography.



Figure 4: Hypercaptation in the carpal and third metacarpal regions.



Figure 5: Diagnosis of Osteoid Osteoma.

### Discussion

An osteoid osteoma is a benign bone tumor that arises from osteoblasts and was originally thought to be a smaller version of an osteoblastoma, characterized by being less than 1.5 cm in diameter; it can be in any bone of the body, although more common in the long bones, like femur and tibia, and less

common in the jaw and craniofacial bones. They represent 10 to 12 percent of all benign bone tumors, can occur at any age, and are more common between the ages of 4 and 25 years, are affected three times more men than women (Man / Female: 3 - 1) [1].

They cause a dull ache, it is not radiant, if it is persistent over 24 hours, which increases considerably at night [2] and tends to alleviate with NSAIDs like ibuprofen [3]. X-rays on the osteoid osteoma typically show a round light, which contains a dense sclerotic central nest (the lesion characteristic of this type of tumor), surrounded by sclerotic bone [4-7]. The nidus is rarely larger than 1.5 cm. Osteoid osteoma shares, in on radiographs the osteoid osteoma typically shows a round light, which contains a dense sclerotic central nest addition to clinical similarities, histological features with osteoblastoma [8-13]. Both benign bone tumors are characterized by the formation of osteoid tissue surrounded by vascular fibrous stroma and perilesional sclerosis [14-18]. In the osteoid osteoma, the production of osteoid and vascular connective tissue is less abundant than in the osteoblastoma [19-21].

Macroscopically, the osteoid osteoma is smaller (1-1.5 cm) than the osteoblastoma, which in its usual size is greater than 2 cm in diameter [2,22]. The most important difference in osteoid osteoma is that it lacks growth potential compared to osteoblastoma, which may be locally aggressive [6,13], with high cellularity atypical cells [23,24], which can lead to local destruction, early recurrence and even Tumor malignancies [9,20,23,25]. The osteoid osteoma with clinical and radiological characteristics of a benign tumor allows a wide differential diagnosis, prior to the biopsy of other tumors, including giant cell, aneurysmal bone cyst, enchondroma, chondrosarcoma and osteosarcoma [6,13].

In the present case, we see an injury with nonspecific clinical and radiological features for an osteoid osteoma, suggesting a non-benign lesion with a high osteogenic activity by bone scintigraphy. For this reason, in this case, we think of proposing a more aggressive behavior with surgery, although it is mandatory to perform a previous bone biopsy. The pathological anatomy report histologically confirms osteoid osteoma.

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