Acromial Metastasis: Diagnosis by Magnetic Resonance Imaging

Metástase para o Acrómio: Diagnóstico pela Ressonância Magnética

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A 69-year-old male patient complains of pain in the right shoulder for 15 days. Refers treatment for prostate adenocarcinoma with docetaxel and mitoxantrone – 12 cycles. Denies trauma at the site of symptoms. Consult not to practice physical exercises. He presents elevation of the prostate specific antigen (PSA) in the last six months, being the last one a month ago measuring 2595 ng/mL.

He mentions limitation of mobilization of the right shoulder, without improvement with the use of opioids, making it impossible to perform a physical examination of the joint. There are no bulges on the shoulder or changes in skin color. Magnetic resonance imaging demonstrates metastases in the humeral diaphysis and acromion. With the diagnosis, the patient was referred for antalgic radiotherapy.

The acromion is a bony accident of the scapula, forming the highest portion of the shoulder, and is located over the glenoid cavity. In cases of pain in the acromion, many professionals tend to associate this symptom with rotator cuff syndrome or tendinitis – prevalent findings.[1]

In a study carried out at the University of California, only 31 cases of metastasis to the acromion were diagnosed in 25 years. This low diagnostic rate may result in an aggravation of aggressive secondary processes.[2] According to Dahlin, in a review of 1853 bone tumors performed at the Mayo Clinic, only 3% affected the scapular region.[2]

The acromion is an essential structure for stabilizing the shoulder complex. Computed tomography (CT) and magnetic resonance imaging (MRI) are important diagnostic imaging methods for characterizing the lesion in this structure. In addition, MRI can be used to assess metastatic spread in the medullary cavity, the extent of tumor disease and the involvement of other neighboring structures. Bone metastasis involving the acromion is usually treated non-surgically with radiotherapy, playing a critical role in the palliative management of these lesions.[3,4] The evolution to death was expected due to the malignancy and aggressiveness of the lesions.[2]

Possibly, metastases to the acromion are more common than reported in the literature, but they are not diagnosed since the initial symptomatology can be confused with subacromial pathologies - bursitis and tendinopathies, aggravating expansive lesions in the acromion. Therefore, it is important to clarify early if there are symptoms in the region.

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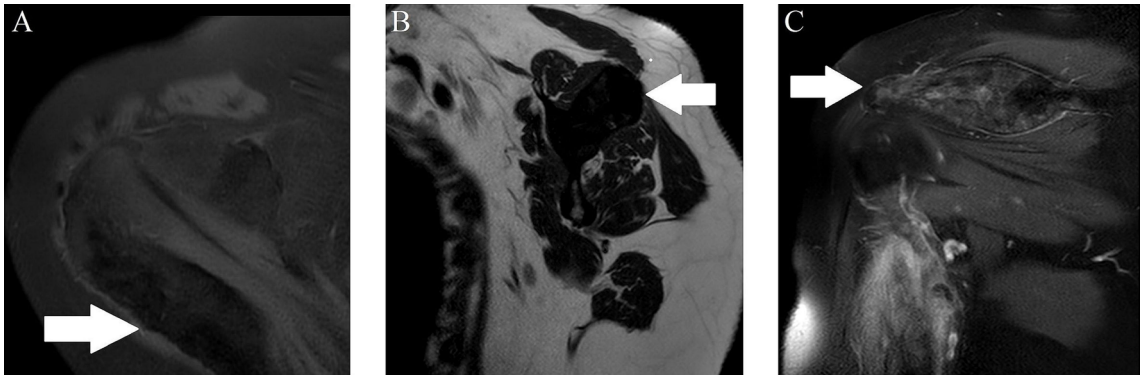

Figure 1: T1 SPIR MRI in axial section in A; T2-weighted MRI in sagittal section in B; Postcontrast T1 SPIR MRI coronal section in C revealing a heterogeneous and expansile bone lesion in the acromion (white arrows) with contrast enhancement.

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