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Malignant Histiocytofibroma of Anterior Tibial Tuberositis about a Case and the Review of the Literature

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Abstract **Case Report**

Malignant histiocytofibroma is a group of tumors developed from primitive mesenchymal cells with both partial fibroblastic and histiocytic differentiation with collagen production and phagocytosis activity. Histiocytofibroma develops mainly in the muscles of the lower and upper limbs and is usually deep, but may be superficial subcutaneous localization, bone localization is much rarer. We report a case of malignant histiocytofibroma of the anterior tibial tuberosity in a young adult.

Keywords: Malignant histiocytofibroma, anterior tibial tuberosity.

INTRODUCTION

Malignant Histiocytofibroma it is a rare clinical entity presents only 3% to 4% of bone sarcomas mainly affects the male subject between 30 and 60 years. It affects mainly long bones.

OBSERVATIONS

The case is a 20-year-old patient (a girl), with no significant pathological history, presenting a swelling for 3 months compared to the 1/3 of upper right leg of rapid evolution, painful, with no visual inflammatory sign.

The clinical examination revealed a swelling of the upper 1/3 of the right leg. The knee joint was free. The somatic examination was normal, and no lymphadenopathy was individualized. The biological check-up was normal without inflammatory syndrome.

Standard radiography showed a gap with the anterior tibial tuberosity (Figure 1). The assessment was supplemented by an MRI showing a heterogeneous T1 hypersignal tumor process taking the anterior tibial tuberosity (Figure 2). A biopsy was performed and the diagnosis of malignant histiocytofibroma was made.

The extension balance is negative. Methotrexate-based initial chemotherapy was initiated to decrease the size of the tumor, and two months later the patient underwent resection of the tumor.

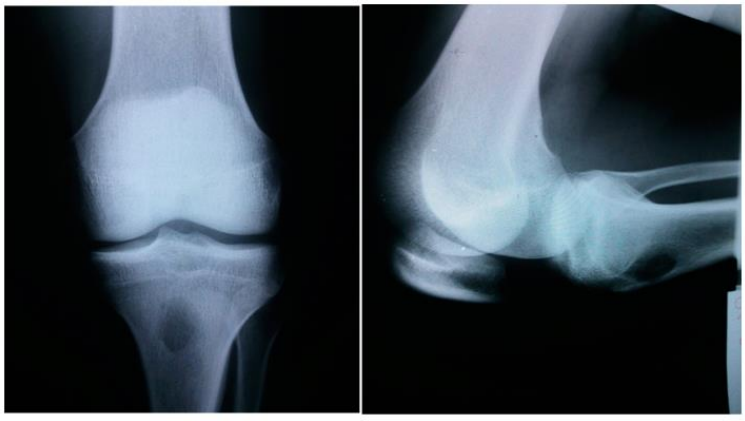

Fig-1: Standard RX of face and knee profile shows a lytic image of the anterior tibial tuberosity

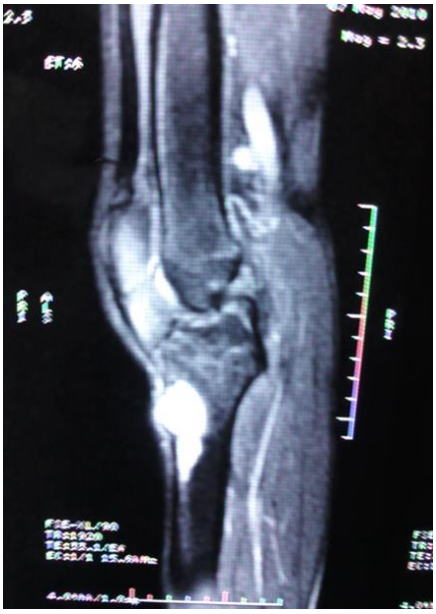

Fig-2: MRI of the knee shows the hyper-signal appearance of the anterior tibial tuberosity in T 1

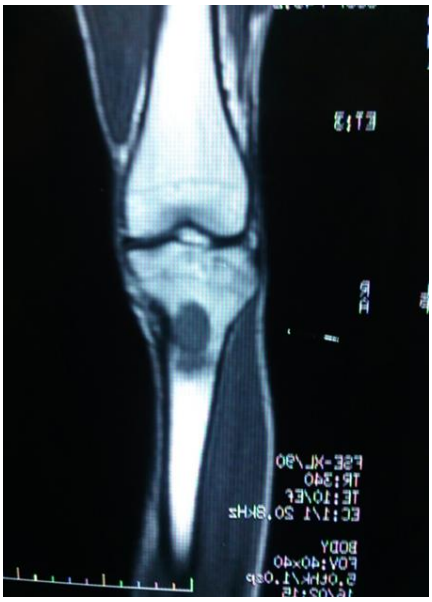

Fig-2: MRI of the knee shows the hyper-signal appearance of the anterior tibial tuberosity in T2

DISCUSSION

A rare tumor that mainly affects adults between the ages of 30 and 60, it affects men more than women. For most authors, pain is the most common sign of call, it is often located at the tumor site but can be projected and does not give way to the usual analgesics [1,2]. The swelling exists almost constantly, it is of variable volume.

The radiological signs are, at the beginning, minimal and can escape the interpretation, the radiological aspect and that of a lytic image is not always, characteristic [3,4].

Computed tomography gives more complete information about the bone, its environment, as well as the anatomical structures of the surroundings. MRI is currently the most effective examination, it replaces or supplements CT, and it allows better characterization of tumor elements and their environment [5].

The diagnosis of certainty is based on anatomopathological examination, which can be performed either by trocar or by a surgical approach. Seen macroscopically, the tumor is often whitish, multi-lobulated, friable infiltrating and destroying all the plans of a region. Microscopically, they are small cells resembling other sarcomas with a mesenchymal ultrastructure [6,7].

The prognostic factors are based on the tumor volume, the initial site of the tumor, the age of the patient, the existence of metastases at the time of

diagnosis, the histological response to chemotherapy [8].

The treatment is based on chemotherapy first, in order to have a volumetric regression of the tumor; this chemotherapy is based mainly on methotrexate. Since the use of intensive chemotherapy, survival at 5 years is around 50 to 60% [9, 10].

Surgery is an act both diagnostic and therapeutic, its goal is to perform a satisfactory oncological intervention passing in any point in healthy tissue, it can be either conservative or radical [11, 12]. Metastases are possible and the target organs are the lung, the skeleton, the liver, the brain, the peritoneum and the ganglia.

CONCLUSION

Histiocytofibroma grade III is a malignant tumor that develops frequently in bone tissue and rarely in the soft tissues. The positive diagnosis remains difficult even on the anatomopathological level. The therapeutic management is heavy and combines a local treatment based on surgery and chemotherapy. Monitoring is clinical and radiological.

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