

GIANT CELL TUMOURS OF THE TENDON SHEATH – PARTICULAR MRI ASPECT

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Giant cell tumor of soft tissue (GCTST) is usually of synovial origin. It affects synovial membrane, serous bursae, and tendinous tunnels. The most common localizations are in the hands and forearms.

Anatomopathological, GCTST is considered as being composed of a cellular fibroblastic stroma in which the tumor cells are distributed. This type of tumor is composed of a mononuclear complex and osteoclast-like giant multinucleated cells, similar to those found in the giant cell tumor at the bone level.

Histologically, some authors consider that GCTST is a strictly benign tumor, consisting of well-defined multinucleated histiocytes admixed with eosinophils, lymphocytes and scattered spindle-shaped cells, or hemosiderin deposits in its structure, and tumor cells do not have mitosis or atypia. Other authors consider that GCTST is a type of low-grade sarcoma; this entity was named "malignant fibrous histiocytoma, giant cell type" due to the histological similarity with malignant fibrous histiocytoma.

The case of a female patient, suspected of giant cell tumor of the brachioradialis tendon sheath was presented. The MRI aspect of this tumor is not the typical one. The MRI examination consisted of a series of sequences, with T1 and T2 weighted images, fat suppression sequence, performed in all three planes, axial, sagittal, and coronal. Also, the examination was performed native, after the administration of intravenous contrast substance, when the 3D multiplanar sequences were performed. The final diagnosis was the post-operative anatomopathological examination, which confirmed that it was a giant cell tumor. We present this case for its less frequent localization – forearm, and the interest it might have in surgical treatment.

Keywords: MRI, giant cell tumors, tendon sheath