Case Report

GIANT CELL TUMOR OF ACL TENDON SHEATH

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SUMMARY
The author presents a case report of Tumor Giant Cells (TGC) localized on the anterior cruciate ligament sheath, an extremely rare site for this kind of lesion. A 37 y-o female patient presented with knee pain, with no history of previous trauma. She underwent clinical examination, X-ray study and magnetic resonance of the region. The diagnostic hypothesis of Sheath TGC was provided, and the patient was treated with tumor arthroscopy resection. Diagnosis was confirmed by anatomopathological examination. By the end point assessment, none of the pre-operative symptoms were reported. The X-ray study (figure 1) showed no changes. A NMR was requested (figures 2 and 3), which evidenced a 15-mm oval, solid lesion next to the anterior cruciate ligament. She was submitted to surgical arthroscopy in June 2004 (figure 4), two months after the imaging diagnostic test, when marginal resection of the tumor was performed. Surgical time was 20 minutes, during which the patient was kept under general anesthesia, with mechanical ventilation by means of a laryngeal mask and with a pneumatic garrote at 250 mmHg on the operated limb. The piece was sent to anatomopathological analysis.

INTRODUCTION
The Giant Cells Tumor of Tendon Sheath (GCTTS) is a histioyte-simile benign tumor associated to multinucleated giant cells, taking circumscribed or polygonal shapes, with sizes ranging from 0.5 to 5.5 cm. Its etiology is not fully understood yet. It is more commonly found on hands and feet, and more rarely on ankles and knees. The GCTTS affects individuals at the age of 46 in average (6 – 71 years) and is more frequently found in women 1.6:M:1H. Its annual incidence, according to Monaghan et.al is 1/50,000. GCTTS localized at the knee corresponds to 2.8 – 3.9% of the total number of occurrences. In the knee, the most common sites are the suprapatellar recesses and the medial meniscal-capsular union. Clinical manifestations are unspecific and include: complaints of pain and diffuse swelling, which can affect the range of movement of the involved tissue. X-ray images do not present specific findings, with NMR being the most accurate method for preoperative diagnosis. The arthroscopic treatment has been shown to be effective, presenting low morbidity, and being clinically resolving. The objective of this study is to report a GCTTS case on the Anterior Cruciate Ligament, a rare tumor, in a further rare site for this kind of lesion.

CASE REPORT
This was a 37 year-old female patient, complaining of knee pain in the previous 06 months, which started insidiously and manifesting to the patient during usual daily activities. She underwent clinical examination, X-ray study and magnetic resonance of the region. The diagnostic hypothesis of Sheath TGC was provided, and the patient was treated with conventional physical therapy was established with isometric exercises and muscular elongation. After 02 weeks of physical rehabilitation program, the patient resumed her usual activities.

Study conducted at the Orthopaedics and Traumatology Institute, Medical College, University of São Paulo, FMUSP, Brazil.

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DISCUSSION

Jaffe and cols. were the first authors to suggest that this pathology is part of a family of lesions including giant cell tumor of tendon sheath, diffuse and local pigmented villonodular synovitis, and the extra-joint pigmented villonodular synovitis, which develops inside bursas. The etiopathogenesis of GCTTS is still unclear. Some authors suggest that this disease is resultant from a lipid metabolism change, inflammation or benign neoplastic process. The potential of this disease being induced by trauma is described; Rodrigues et al. found a prevalence of previous trauma in 21% of patients with GCTTS. The clinical and X-ray-based diagnosis of GCTTS is difficult, because anamnesis, physical examination and X-ray data are unspecific, requiring the establishment of differential diagnoses of potential causes for knee arthralgia. In this scenario, NMR is very important, examining if potential
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