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Letters to the Editor

Lipoma arborescens in Pediatric Knee. Nuclear Magnetic Resonance☆

Lipomatosis arborescens *en rodilla pediátrica. Resonancia magnética nuclear*

To the Editor:

We report a case of *de novo* lipoma *arborescens* in a pediatric patient, in which nuclear magnetic resonance (NMR) was decisive in the diagnosis, ruling out other causes of monoarthritis.

Lipoma *arborescens* is an uncommon benign tumor affecting synovial joints and bursae, that is characterized by the replacement of normal synovial tissue by mature fat cells, which provokes villous lipomatous proliferation. It is usually associated with synovitis.[1,2] The cause is unknown and, although it has been reported in both adults and children, there are very few articles involving the latter.

It typically affects the suprapatellar pouch of the knee joint and is, usually, monoarticular, although there are cases in which it is bilateral or occurs at another location like the elbow, ankle, wrist or hip.[1,2]

In most cases, it occurs *de novo*, but it is not that rare that it be associated with osteoarthritis, rheumatoid arthritis or an injury.[1–4]

The clinical signs include intermittent episodes of pain and joint inflammation with inconclusive laboratory findings and synovial fluid that shows no evidence of inflammation.[1,2,5]

Although plain radiography, ultrasound, arthrography and computed tomography can be of help, NMR is the best imaging technique for the diagnosis.[6–9]

The recommended treatment is total synovectomy[1,2,5] by arthrotomy or arthroscopy.

Our patient was a 12-year-old girl with no significant previous medical history, except for a diagnosis of septic arthritis of the shoulder when she was 9. She had been treated with empirical antibiotic therapy and arthrotomy for drainage. There had been no signs of microorganisms in either the synovial fluid or blood cultures. All of the studies performed during her hospital stay were negative and all of the symptoms had completely disappeared.

Three months before a follow-up visit, she noted progressive inflammation in her right knee, with occasional functional disability. She came to the emergency department, where she underwent arthrocentesis, which yielded a yellowish fluid with negative cultures, including Ziehl-Neelsen staining and culture on Löwenstein-Jensen medium. She was referred to rheumatology to be studied.

She had no other symptoms or evidence of disease in a physical examination, except swelling of the knee, which was painless at that time, and there was only slight synovial effusion. Chest radiograph was normal, purified protein derivative (PPD) test was negative, complete blood count was normal, erythrocyte sedimentation rate 6 mm/h, urine analysis normal, C reactive protein 0.21 mg/L, antinuclear antibody test negative, rheumatoid factor 7 IU/mL, immunoglobulins normal, human leukocyte antigen (HLA)-B27 negative, and her celiac profile and α-1-acid glycoprotein were normal.

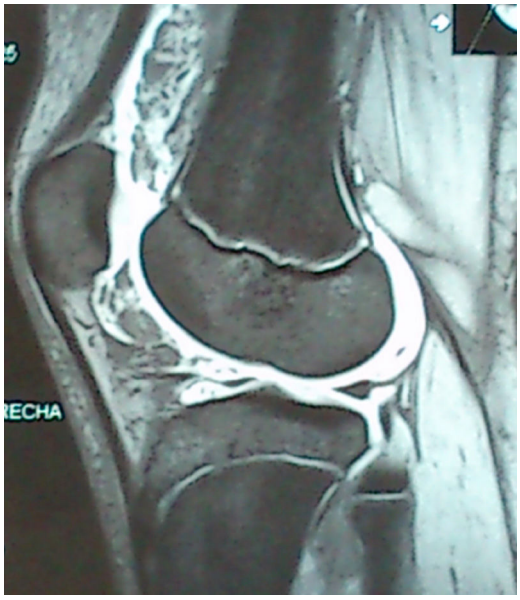

Fig. 1. Sagittal views; T2-weighted with contrast. Intra-articular fluid. Synovial hypertrophy with hyperintense areas that correspond to fat.

We also took a plain radiograph of the knee, which was normal.

Ultrasound of the affected knee: marked thickening of the synovium, especially in the suprapatellar recess, where it was accompanied by slight joint effusion. The synovial membrane showed, at some points, polypoid thickening that seemed to be floating in the middle of the effusion.

Right knee NMR: there was a small Baker's cyst on the medial side of the popliteal fossa and a moderate joint effusion in the suprapatellar recess. In the middle of the effusion there was a marked thickening of the synovial membrane that gave it finger-like or polypoid images, and occupied the suprapatellar recess, Hoffa's fat pad and the part adjacent to the cruciate ligaments and menisci. These formations had a signal like that corresponding to fat. After the intravenous administration of the contrast medium, there was an enhancement marked by the synovium that surrounded the polypoid lesions. This image was the confirmation of lipoma *arborescens* (Fig. 1).

Ultimately, we decided to perform an NMR study of the patient's shoulder in view of the septic arthritis, and the result was normal.

She was referred to an orthopedic surgeon for synovectomy, and the symptoms disappeared.

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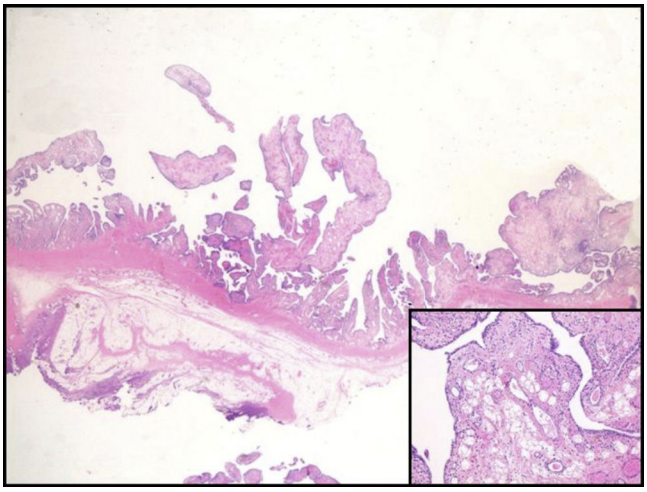

Fig. 2. Villous proliferation in the synovium. *Inset:* adipose infiltration.

Five months after the synovectomy, she noted inflammation in the left knee and functional disability. Nuclear magnetic resonance and ultrasound led to a diagnosis of lipoma *arborescens*.

She underwent surgery, and the pathological study of the synovial membrane confirmed the diagnosis (Fig. 2).

Nuclear magnetic resonance can be highly useful in the evaluation of noninflammatory processes in patients with atypical monoarthritis.

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Cutaneous Leishmaniasis: An Opportunistic Infection☆

Leishmaniasis cutánea. Una infección oportunista

To the Editor,

Leishmaniasis is a parasitic disease caused by the intracellular protozoa *Leishmania*. It is transmitted by through the bite of a mosquito: the female phlebotomus. There are 21 species of *Leishmania*. The species most widespread in Spain is *Leishmania infantum* and its major reservoir is the dog.[1]

A number of cases of leishmaniasis have been reported in patients with different rheumatic diseases who were being treated with biological drugs.

We describe a case of cutaneous leishmaniasis in a woman with rheumatoid arthritis who was receiving an anti-tumor necrosis factor (TNF)-α and methotrexate. The patient was 54 years old and had been born in Murcia, a city in southeastern Spain. She had been diagnosed with rheumatoid arthritis 5 years earlier, and was positive for rheumatoid factor and anti-cyclic citrullinated peptide antibodies. She was being treated with subcutaneous methotrexate (25 mg each week) together with adalimumab at a dose of 40 mg every 15 days. She had no significant medical history or harmful habits. The patient was in clinical remission and it was decided to increase the interval between adalimumab doses to 21 days. Weeks later, she developed a nodular and ulcerated lesion on the palmar side of her left carpus (Fig. 1). Biopsy led to a diagnosis of cutaneous leishmaniasis. Immunosuppressive therapy was discontinued and she underwent an analytical and imaging study, which ruled out visceral leishmaniasis. The patient was treated with amphotericin B at a dose of 3 mg/kg body weight/day for 5 days, and the lesion disappeared. Intralesional treatment was not performed and there were no secondary effects of the therapy.

In Spain, according to a report of the Ministry of Health dated 2012, the autonomous communities that had reported cases of leishmaniasis during the preceding decade were: Andalusia, Aragon, Balearic Islands, Cantabria, Castile-León, Catalonia, Valencian Community, Extremadura, Community of Madrid, Region of Murcia, Chartered Community of Navarre and La Rioja. According to the registry of the Center for the Coordination of Health Warnings and Emergencies, between 2002 and 2010, 82 cases were reported in Murcia.

The disease can present in 3 clinical forms[2]: cutaneous, mucocutaneous and visceral leishmaniasis. In the cutaneous and mucocutaneous forms, the diagnosis is reached by biopsy and visualization of *Leishmania* in the cells.

The mucocutaneous form presents with erythema, erosion and ulcers around the lips and nose; the differential diagnosis should include Wegener granulomatosis, among others. In the cutaneous form, we find lesions in areas of exposed skin, like face, arms

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