Rice Bodies in Tuberculous Tenosynovitis of Wrist

Cuerpos de arroz en la tenosinovitis tuberculosa de la muñeca

Dear Editor,

Rice body formation is an uncommon inflammatory process occurring in joints and tendon sheaths in systemic disorders. Since their first description in 1895 in a patient with tuberculosis, these have been described in various rheumatic diseases including rheumatoid arthritis, juvenile idiopathic arthritis, and seronegative inflammatory arthritis, in infections with atypical mycobacteria, and in subacromial bursitis. Generally involving shoulder and knee joints, we describe here a rare case report of a patient with isolated wrist tenosynovitis with rice bodies on magnetic resonance imaging (MRI) who was diagnosed as tuberculosis based on results of microbiologic investigations.

A 50-year-old lady came with progressive pain and isolated swelling of the right wrist of 9 months duration. Physical examination revealed an oblong swelling on the volar aspect of wrist extending into the forearm. Attempted active flexion at the wrist was painful though passive range of movement was normal. Laboratory investigations showed raised erythrocyte sedimentation rate of 50 mm/h. Radiograph of the wrist was normal. MRI revealed well-defined fluid intensity collection along the flexor tendon sheath with presence of hypointense-layered lucencies within suggestive of tenosynovitis with rice bodies (Fig. 1A and B). The adjacent bone and soft tissues were normal. Fluid obtained by ultrasound-guided aspiration from the tenosynovial swelling was positive for Acid Fast Bacilli. Culture grew Mycobacterium Tuberculosis and hence, diagnosis of tuberculosis was reached. The patient did not have diabetes and was not on any immunosuppressive drugs. Serology for Human Immunodeficiency Virus (HIV) was non-reactive. The patient responded to six months of anti-tuberculous therapy with complete resolution of pain and swelling.

Bibliografía


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Rice bodies are known to occur commonly in rheumatic conditions such as rheumatoid arthritis (RA), juvenile idiopathic arthritis, seronegative inflammatory arthritis, and also osteoarthritis.\(^2\)\(^-\)\(^4\)\(^9\) Pigmented villonodular synovitis (PVNS) and synovial osteochondromatosis form the primary differential diagnoses. In a patient with isolated tenosynovitis, infection is highly likely, and mycobacteria are most often implicated. Rice body formation has been seen with tenosynovitis due to Mycobacterium tuberculosis, and nontuberculous mycobacteria (NTM), including Mycobacterium marinum, Mycobacterium kansasii, rapid growing mycobacterium, Mycobacterium avium and Mycobacterium intracellulare.\(^5\) The laboratory should always be informed of the possibility of NTM, as these can be differentiated on culture. Treatment includes mycobacterial therapy and tenosynovectomy to avoid complications such as tendon rupture.\(^10\) However, rarely, as in our case, resolution has been reported with antitubercular therapy without any surgical treatment.\(^11\)

In a patient with early polyarthritis yet negative autoantibodies, rice body formation could be a salient marker to underlying RA. In established RA, it is important to know that these solid masses are treatable; as resolution has been described with intraarticular steroids and/or disease modifying anti-rheumatic drugs in most cases without sequelae. This can obviate a surgical procedure, which although initially successful, is associated with recurrence in one-third of patients. Half of those with recurrence require re-operation.\(^12\) Lastly, rice bodies are rare in the wrist. If not identified and treated they can progress to compressive neuropathy and tendon ruptures.\(^11\)

### Bibliografía


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