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MONOARTHRITIS SUGGESTIVE OF TUBERCULOSIS IN AN ADOLESCENT: CASE REPORT

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Osteoarticular infection caused by Mycobacterium tuberculosis is more common in children and adolescents than in adults. A suggestive picture is monoarthritis with histopathology of the lesion demonstrating granulomatous reaction. Its diagnosis is suggested by family history or close contact with a positive person, positive Mantoux (80% of cases), positive synovial fluid culture (75%), biopsy with granulomatous reaction and positive synovial membrane culture in up to 90% In most cases, imaging exams can demonstrate bone destruction, cysts, cavitations.

This paper presents a case report of a patient with monoarthritis in the hand, with a picture suggestive of infectious arthritis due to TB, but without biopsy confirmation and who evolved with a good response to the therapeutic test.

Adolescent, 13 years old, male, with a complaint of edema in the left hand, perceived after healing of a wound caused by perforation by a nail at the site, had no other complaints, denied morning pain or stiffness, reported limitation of movement due to worsening of the edema. On physical examination, he presented painless cold swelling in the entire dorsal region of the left hand. Patient brought MRI showed signs of intercarpal and carpometacarpal inflammatory arthropathy, with osteochondral erosions, joint effusion, synovitis and small subcortical cystic cavitations. Complementary tests showed non-reactive anti CCP3 and Rheumatoid Factor, PDD>9; other laboratory tests without abnormalities; Chest X-ray: absence of lymph node enlargement; Pulmonary micronodule on the right with ground-glass attenuation.

A local bone biopsy was performed demonstrating chronic synovitis with granulomatous reaction and associated exuberant villous hyperplasia. Staining to search for BAAR negative fungi and bacilli, requiring a better investigation of the granulomatous disease in question. Tests were requested to rule out sarcoidosis. Despite the negative test for tuberculosis, due to PPD > 9, history of local perforation and biopsy with granulomatous reaction, a diagnosis of latent tuberculosis was inferred and a RIPE regimen was initiated, evolving with improvement of the edema after the first month of treatment. A new MRI was performed demonstrating resorption of most of the joint effusion, resorption of bone edema, without signs of synovitis.

The patient in question had monoarthritis, positive PPD, granulomatous reaction to histopathology. Despite the negative culture, the condition was suggestive and it was decided to start tuberculosis treatment, with an important therapeutic response to the treatment. The importance of this report is due to the fact that Tuberculosis is still a prevalent disease in Brazil and should be remembered as a differential diagnosis in cases of monoarthritis.

MONOARTHRITIS SUGGESTIVE OF TUBERCULOSIS IN AN ADOLESCENT

BACKGROUND

Osteoarticular infection caused by Mycobacterium tuberculosis in more frequent in children and adolescents than in adults. This condition should be suspected in chronic monoarthritis with granulomatous reaction on histopathological analysis. The diagnosis is suggested by positive family history of tuberculosis or close contact with infected people, positive tuberculin skin test - TST (up to 80% of positivity) -, positive synovial fluid or membrane culture and biopsy with granulomatous reaction. Imaging studies may show bone erosions, cysts and/or cavitations. This paper presents a case report of a teenager with hand monoarthritis,

suggestive of tuberculosis infection; although cultures for M. tuberculosis were negative, he presented satisfactory response after empirical treatment.

CASE REPORT

13-year-old male adolescent presenting self-reported swelling of the left hand. He had no other complaints, denying morning pain or stiffness and systemic symptoms. He reported limited movement due to worsening edema after hand puncture caused by hobnail sometime before. Physical examination showed painless cold swelling in the entire dorsal region of the left hand. Magnetic resonance imaging (MRI) showed signs of intercarpal and carpometacarpal inflammatory arthropathy, with osteochondral erosions, joint effusion, synovitis and small subcortical cystic cavitations. Complementary tests showed nonreactive rheumatoid factor and anti-citrullinated antibodies, and unremarkable inflammatory markers. His TST was > 9mm. Chest radiography showed micronodule on right lung with ground glass attenuation, without lymphadenomegaly. A bone biopsy was performed, demonstrating chronic synovitis with granulomatous reaction and exuberant villous hyperplasia. Tests for acid-alcoholresistant bacilli and fungi were negative. Additional investigations for sarcoidosis ruled out this condition. A presumptive tuberculosis diagnosis was made considering clinical, radiological e histopathological findings in addition to the positive TST, despite negative cultures. Multidrug treatment was instituted with improvement of the swelling one month after its start. A new MRI was performed, showing regression of most of the joint effusion e bone edema, without signs of synovitis.

CONCLUSION

The reported patient had monoarthritis, positive TST and granulomatous reaction in the biopsy. Despite the negative cultures, the diagnosis for tuberculosis was suggestive and there was a sustained clinical and radiological response to the treatment. This report is an important reminder that tuberculosis is still a prevalent disease in Brazil and should always be remembered as a differential diagnosis in cases of chronic monoarthritis