



Letter to the Editor

A rare presentation of hydroxyapatite deposition disease: Polyarthrititis

Una rara presentación de la enfermedad por depósito de hidroxiapatita: poliartritis

A 22-year old woman presented with seronegative polyarthrititis of the hands, wrists, knees, and feet. She had a four-year history of rheumatoid arthritis diagnosis (RA) and several drug usage including glucocorticoids, conventional synthetic and biological DMARDs. Only prednisone was partially effective for her complaints.

In detailed anamnesis, synovitis was in relapsing form in the beginning of the disease course. Clinical and laboratory assessments were unremarkable for rheumatic, metabolic, malignant, and infectious diseases. No crystals or microorganisms were detected in synovial fluid evaluations. In the plain radiography of hands there was a calcification image in the right 5 metacarpophalangeal (MCP) joint area (Fig. 1). A dual-energy computed tomography (DECT) scan of her hands revealed degeneration and bilateral, periarticular mineralization around several joints; color-coded as purple, in a volume-rendered, 3-dimensional image (Fig. 2). Also in the histopathological evaluation of the specimen taken from the



Fig. 2 – A dual-energy computed tomography (DECT) scan of her hands revealed degeneration and bilateral, periarticular mineralization around several joints; color-coded as purple, in a volume-rendered, 3-dimensional image.



Fig. 1 – The calcification image in the right 5 metacarpophalangeal (MCP) joint area.

calcification in the 5. MCP (200×, hematoxylin-eosin) supported hydroxyapatite deposition (Fig. 3). The diagnosis was confirmed as crystals arthropathy caused by hydroxyapatite deposition disease (HADD).

The typical characteristics of crystals arthropathies is the relapsing course which may be helpful in the differential diagnosis. The evaluation of the synovial fluid with polarized microscope is the gold standard for crystals arthropathies, however, unlike gout or calcium pyrophosphate deposition disease, hydroxyapatite crystals cannot be seen in polarized microscope. DECT has been considered as a non-invasive diagnostic and characterization tool in crystal-associated arthropathies and is being increasingly used in practice.¹

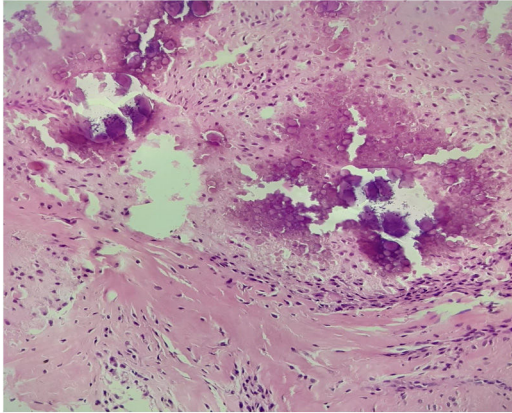


Fig. 3 – The histopathological evaluation of the specimen taken from the calcification in the 5 MCP supported hydroxyapatite deposition (Image 3; 200×, hematoxylin-eosin).

HADD frequently causes calcific periartthritis however, erosive polyarticular involvement is a very rare feature of the disease.² We aimed to share our case with this unusual presentation that can mimic RA.

The authors declare that this article does not contain personal information that allows identifying patients.

No ethical approval was needed since the manuscript included only the radiological and pathological images.

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