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Letter to the editor

Sonographic appearance of pseudopodagra in Behçet's disease Aspecto ultrassonográfico de pseudopodagra na doença de Behçet

Dear Editor,

Arthritis of the first metatarsophalangeal (MTP) joint of a different cause than gout is identified by the term pseudopodagra. Although the majority causes of pseudopodagra are deposits of other micro crystals, there has been other rare cause, such as Behçet's disease.^{1,2} We present the case of a patient with a pseudopodagra due to Behçet's disease.

A 43-year-old female patient suffering from Behçet's disease for 10 years presented to the emergency department (ED) with discomfort in her right MTP joint. The onset was characterized by acute pain, swelling, erythema, tenderness, and limitation of movement of the first MTP joint of the right foot. The patient denied any fever, chills, trauma, urethral symptoms, conjunctivitis, or history of gout. She had a past several attacks affecting oligoarticular involving knees and ankles. There was no family history of rheumatic disease. On physical examination, she was afebrile and all vital signs were normal. The area overlying her first MTP joint was red, hot, swollen, and exquisitely tender to touch and to any movement of the great toe. The skin was not disrupted, and no lymphangitis or adenopathy was present. All other joints were normal, as was the remainder of the physical examination. Patient refused arthrocentesis procedure. We preferred ultrasound imaging as a first line imaging technique instead of magnetic resonance imaging in order to save time. Grayscale ultrasound examination of dorsal aspect of 1st MTP showed marked synovial thickening (arrows) and minimal synovial fluid (arrowhead) (Fig. 1A). There was no gouty tophus at the MTP joint. On power doppler imaging increased color signals are seen within the hypertrophic synovium consistent with hyperemia (Fig. 1B). On left side, minimal concentric proliferation of synovial lining cell tissue and synovial fluid (arrowhead) was seen (Fig. 2A). There were no color signals within the synovium on the 1st MTP of the left foot (Fig. 2B). Preliminary diagnosis was pseudopodagra rather than metatarsophalangeal arthritis because significant extra-articular soft tissue changes were evident. Soft tissue changes can occur

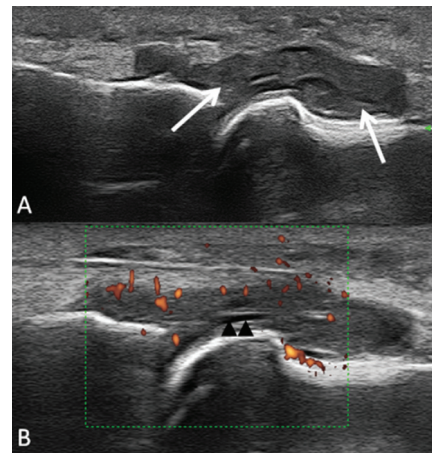


Fig. 1 – A, Grayscale ultrasound examination of dorsal aspect. B, Power doppler imaging increased color signals.

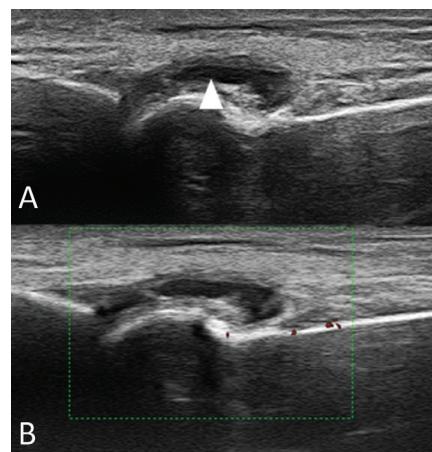


Fig. 2 – A, Minimal concentric proliferation of synovial lining cell tissue and synovial fluid. B, There were no color signals within the synovium.

with rheumatological diseases including familial Mediterranean fever (FMF)'s joint attack, acute rheumatic fever (ARF), calcium pyrophosphate dihydrate (CPPD) crystal deposition disease and gout. Rheumatoid arthritis also commonly affects the MTP joints, although this is characterized with a symmetric polyarthritis, making it a rare differential diagnosis. In our patient FMF and ARF were not considered as a relevant differential diagnosis because those diseases were inconsistent with clinical and laboratory findings. Sonographic features of CPPD deposits depend on the amount and distribution, varying from homogeneously punctate pattern or sharply defined hyperechoic bands within the articular cartilage or floating in synovial fluid to rounded or amorphous-shaped hyperechoic areas in fibrocartilage.³ In the gout, monosodium urate crystals tend to result in hyperechoic enhancement on the superficial margin of hyaline cartilage. The most frequent ultrasonographic characteristic of gouty tophi is hyperechogenicity.⁴ In addition, tophi are generally heterogeneous, with poorly defined contours, multiple grouped and surrounded by an anechoic halo.^{5,6} However, these sonographic findings were not seen in our patient.

Musculoskeletal ultrasound has significant potential usefulness for the diagnosis, severity assessment, decision to treat, and treatment efficacy assessment of patients with unknown etiology arthritis.⁷ The ultrasound examination as a fast, reproducible diagnostic method has now become part of the routine diagnosis in rheumatological disorders.

Conflicts of interest

The authors declare no conflicts of interest.

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Fuat Ozkan*, Gozde Yildirim Cetin, Mehmet Sayarlioglu
Kahramanmaraş Sutcu Imam University, Faculty of Medicine,
Department of Radiology, Kahramanmaraş, Turkey

*Corresponding author.

E-mail: drfozkan@yahoo.com (F. Ozkan).