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Differentiating inflammatory from mechanical pathologies: the impact of rheumatologist-performed ultrasound on psoriatic arthritis diagnosis

Klaudia Rajchert[1,2], Małgorzata Dąbrowska[2], Aleksandra Juszkiewicz[2]

[1]Student Scientific Group at Military Institute of Medicine – National Research Institute, Warsaw, Poland
[2]Internal Medicine and Rheumatology, Military Institute of Medicine – National Research Institute, Warsaw, Poland

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Introduction: Diagnosing autoimmune arthritis in patients with advanced osteoarthritis can be challenging, especially in the early stages of the disease. Overlapping symptoms often lead to delayed diagnosis and ineffective treatment focused solely on degenerative or mechanical changes.

Case description: We present the case of a 66-year-old female with a long-standing history of advanced osteoarthritis of the hands (Heberden's and Bouchard's nodes). The patient reported pain in the right heel (radiating to the Achilles tendon) for approximately 3 months and pain in the second left toe for 2 weeks. Laboratory tests, including rheumatoid factor (RF), antibodies to cyclic citrullinated peptide, and HLA-B27, were negative. A family history revealed psoriasis in the patient's mother.

Initially, the patient received orthopaedic treatment based on an ultrasound diagnosis of Achilles tendinopathy. Despite receiving a platelet-rich plasma injection and subsequent non-steroidal anti-inflammatory drugs therapy, no significant clinical improvement was observed.

During a rheumatological consultation, an ultrasound was performed. The examination revealed clear signs of enthesitis of the right Achilles tendon (increased Power Doppler signal and thickening) and inflammation of the MTP-2 flexor pulley, accompanied by subcutaneous tissue inflammation consistent with dactylitis. Based on the CASPAR criteria (3 points: negative RF, family history of psoriasis, and dactylitis), psoriatic arthritis was diagnosed. Treatment with methotrexate (20 mg/week) and prednisone (10 mg/day) was initiated, and the patient remains under regular rheumatological follow-up to monitor treatment efficacy.

Conclusions: This case illustrates that autoimmune arthritis can pose significant diagnostic difficulties in patients with pre-existing musculoskeletal disorders. It highlights the necessity for clinical vigilance whenever new joint pain patterns emerge. Rheumatologist-performed ultrasound at the point of care remains a crucial diagnostic tool for differentiating inflammatory from mechanical pathologies.

Fig. 1. Achilles oedema.

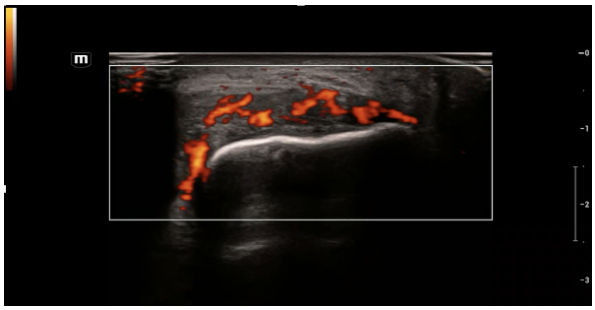

Fig. 2. Achilles enthesitis.

Fig. 3. Osteoarthritis of the hands.