

Dactylitis of the Thumb Extending to the Radial Bursa

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Dactylitis or “sausage-like” digit is a typical manifestation of psoriatic arthritis (PsA)¹ and spondyloarthritis (SpA)². Recently we demonstrated by means of magnetic resonance imaging (MRI) that both finger and toe dactylitis are due to flexor tenosynovitis^{3,4}. The most frequent pattern of digital and palmocarpal synovial sheaths is shown in Figure 1. The index, middle, and ring fingers have synovial sheaths separate from those of the radial and ulnar bursae, which communicate, respectively, with the synovial sheaths of the thumb and the little finger. However, variants showing communication of the sheaths of the index, middle, or ring fingers with the ulnar bursa occur frequently. When dactylitis involves a finger with synovial sheaths communicating with the ulnar bursa, the painful swelling also extends

into the palm of the hand⁵. We describe the case of a patient with dactylitis of the first finger that also extended to the radial bursa. Equally, an infection starting in the sheath of the thumb as a consequence of penetrating wounds may spread by this route to the carpal tunnel.

The patient, a 37-year-old man with PsA, was referred to us in August 2000. Physical examination disclosed finger dactylitis, tenosynovitis of the left flexor carpi radialis, the right flexor and extensor carpi ulnaris, and the right and left tibialis posterior together with enthesitis of the right Achilles tendon. In the first right finger there was a sausage-shaped swelling with pain along the flexor tendons. Pain was elicited also in the thenar eminence. MRI disclosed fluid in the flexor synovial sheaths of the first finger continuing without any interruption into the radial bursa (Figures 2 and 3). The patient was given methotrexate at a dosage of 10 mg/day and diclofenac at a dosage of 100 mg/day with good results.

Our report emphasizes that the involvement of the palmocarpal tenosynovial sheaths should be sought in patients with finger dactylitis. This could be useful in directing localization for steroid injections.

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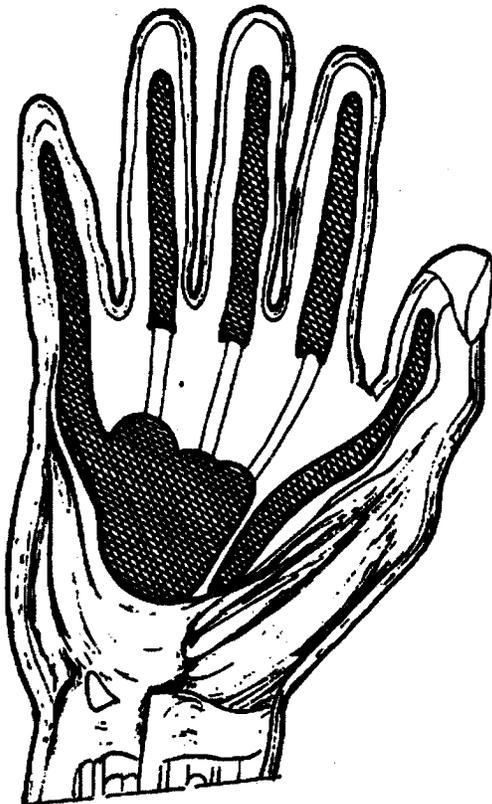


Figure 1. The most common pattern of palmocarpal and digital synovial sheaths: the ulnar bursa (left) and the radial (right).

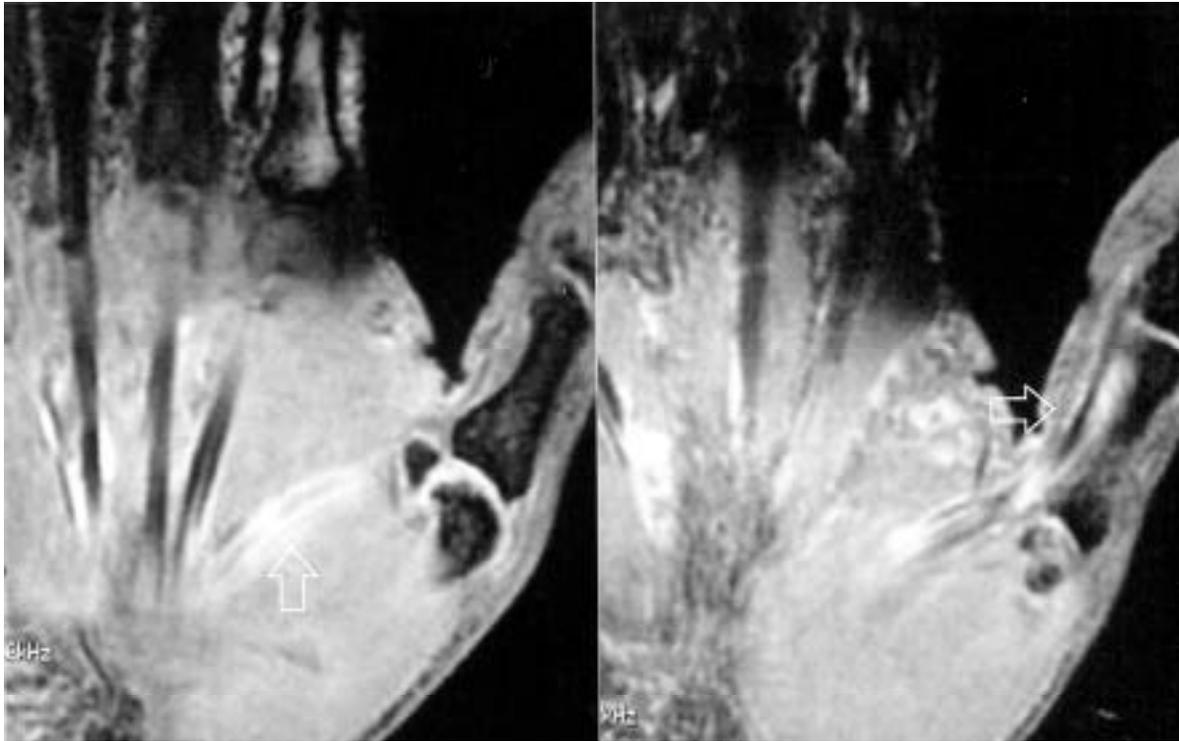


Figure 2. Coronal T2-weighted image showing fluid in the flexor synovial sheaths of the first right finger (arrow) extending without any interruption into the thenar eminence (arrow).

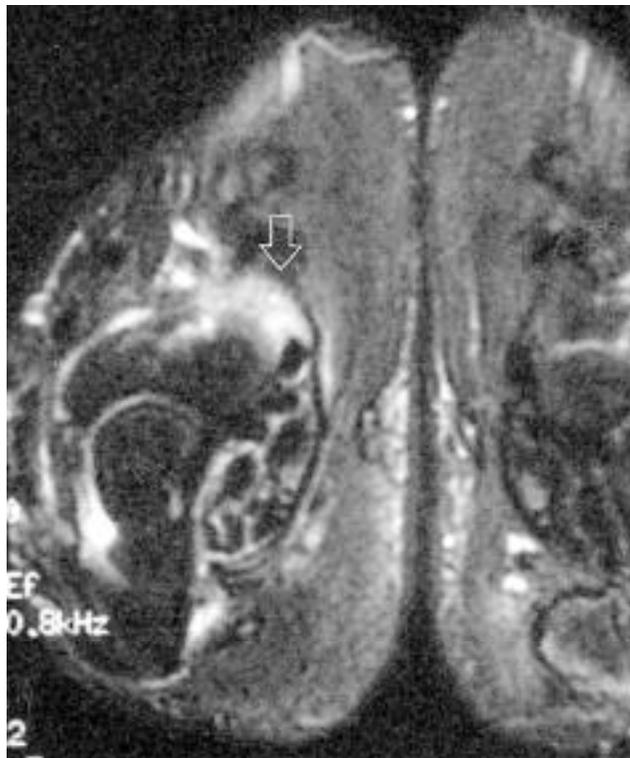


Figure 3. Axial T1-weighted image through the wrists showing fluid in the right radial bursa (arrow).