

Rheumatology Quiz

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A 40-year-old woman with a history of rheumatoid arthritis presented with pain and swelling on the dorsal side of both wrists for one week. (Figure 1)

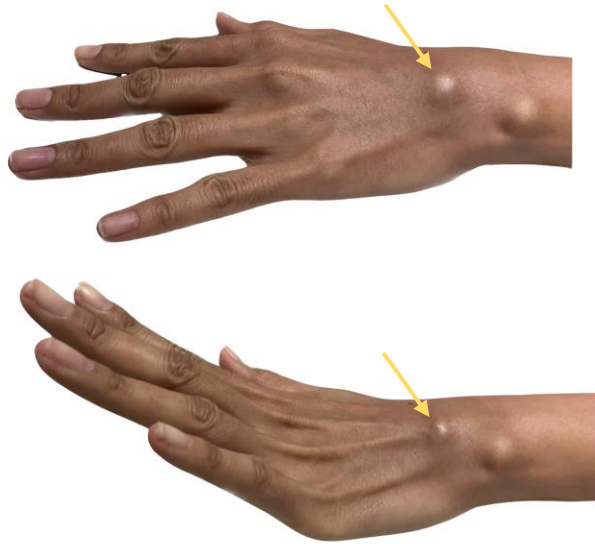


Figure 1

Questions:

1. What is her clinical sign?
2. What is the most likely diagnosis?

Answers:

1. The "Tuck sign."
2. The diagnosis is tenosynovitis of the extensor digitorum communis/extensor indices tendons, which share a common tendon sheath.

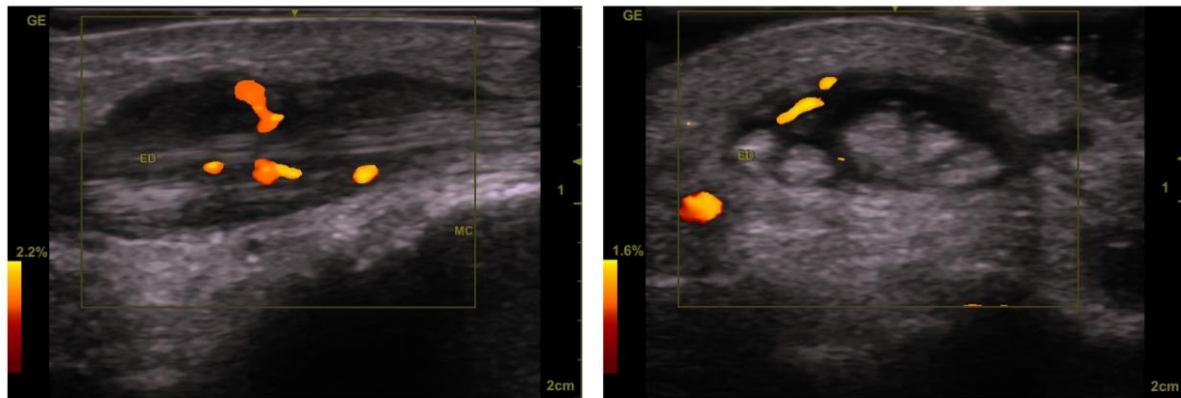


Figure 2

While synovitis is commonly observed in patients with rheumatoid arthritis, tenosynovitis is also frequently seen in this population. According to Kyung-Ann Lee et al.¹, the prevalence of MRI-detected tenosynovitis in patients with rheumatoid arthritis is 78.3%. The fourth extensor compartment and the flexor digitorum profundus/superficialis tendons are often affected.

The "Tuck sign"²⁻⁶ can be demonstrated when the wrist and fingers are fully extended, causing an infolding of the swelling at the distal edge, where the tenosynovium is attached to the extensor tendons. This sign helps differentiate wrist extensor tenosynovitis from dorsal carpal ganglion, which can present with swelling in a similar location.

In this case, an ultrasound revealed hypoechoic thickening of the fourth compartment tendon sheath with positive power Doppler (Figure 2), consistent with the clinical suspicion of tenosynovitis. An ultrasound-guided corticosteroid injection was successfully performed, and a good response was reported at the follow-up visit.

References:

1. Kyung-Ann Lee, Sang-Ho Min, Tae-Hyung Kim, et al. Korean J Intern Med 2019;34:651-9.
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3. Price G. Rheumatology: localized rheumatism. CMAJ 2000;163:176–83.
4. Hasham S, Burke FD. Diagnosis and treatment of swellings in the hand. Postgrad Med J 2007;83:296–300.
5. Achilleos, KM; Gaffney, K. The Tuck sign-proliferative extensor tenosynovitis of the wrist. Joint Bone Spine 2019;86:385.
6. <https://www.rheumtutor.com> by Dr. Raj Carmona