

SAT0201 THE RELEVANCE OF FLEXOR TENDON TENOSYNOVITIS TO SMALL JOINT TENDERNESS AND SWELLING: DATA FROM A PROSPECTIVE EARLY RA COHORT

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Background: Tenosynovitis is a prominent feature of rheumatoid arthritis (RA) (1). Chronic tenosynovitis can lead to tendon rupture, resulting in substantial functional impairment. Ultrasound has proven to be a valid instrument for the detection and evaluation not only of synovitis but also tenosynovitis. Just recently, consensus criteria for the assessment of tenosynovitis were developed by the OMERACT task force (2).

Objectives: To describe the prevalence of tenosynovitis in an untreated early RA cohort, to evaluate the contribution of tenosynovitis to small joint tenderness and swelling, and to assess the response of tenosynovitis to therapy.

Methods: Patients with newly diagnosed and therapy-naive RA were included in the study and assessed by clinical examination and ultrasound. Ultrasound of the palmar metacarpophalangeal (MCP) and proximal interphalangeal (PIP) joints and the flexor tendons was performed with grey scale (GSUS) and power Doppler (PDUS) ultrasound. Synovitic findings in GSUS and PDUS were graded semiquantitatively from 0 to 3, tenosynovitic findings were graded binary for GSUS and semiquantitatively for PDUS as specified before (3, 4). After the initial assessment, patients were treated according to national guidelines and were seen on a regular outpatient basis. Clinical and sonographic reevaluation was performed at month 6. The prevalences of synovitis and tenosynovitis at baseline and follow up were assessed and compared. Subgroup analysis for tenosynovitis in clinically inapparent (i.e. subclinical) and clinically affected joints was performed. P-values less than 0.05 were considered significant.

Results: Data of 60 patients with early untreated RA was available for analysis. At baseline, overall prevalence of flexor tendon tenosynovitis was 22.5% with PDUS grades 0, 1, 2, and 3 detected in 42.0%, 15.8%, 39.3%, and 2.8%, respectively. MCP and PIP joints were affected by synovitis in 42.2% and 44.1%. At baseline, overall prevalence of subclinical flexor tendon tenosynovitis was 14.8%, while subclinical synovitis was present in 33.0% and 28.3% of the MCP and PIP joints, respectively. In clinically affected fingers, tenosynovitis was detected in 37.6%. Of these, 29.1% occurred in association with small joint synovitis while in 8.5% no articular findings were detected. Small joint synovitis alone was detected in 36.5%. At follow up after 6 months, overall prevalence of flexor tendon tenosynovitis was 5.0%, while synovitis of the MCP and PIP joints was present in 17.1% and 16.3%, respectively ($p < 0.001$ versus baseline for tenosynovitis, MCP and PIP).

Conclusions: Ultrasound data from this prospective early RA cohort show a high prevalence of flexor tendon tenosynovitis and an association with small joint synovitis. Both tenosynovitis and synovitis contribute to clinical tenderness and swelling, but can also occur subclinically. The role of flexor tendon tenosynovitis as a sole contributor to clinical symptoms in RA seems to be of minor importance. Upon treatment, flexor tendon tenosynovitis has a significantly better response than small joint synovitis.

References:

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