respectively ($p < 0.001$). Muscle strength was generally preserved at follow-up. However, there were moderate to strong correlations ($r = 0.54-0.96$) between weaker muscle strength at follow-up and greater reduction in SWV.

Figure 1. Muscle stiffness changes in the quadriceps, hamstrings and biceps brachii.

Conclusion: The GCA patients showed a significant loss of muscle stiffness after 3 and 6 months of corticosteroid treatment. With further validation in larger samples, shear wave elastography may be useful for detecting subclinical CIM.

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PROLIFERATIVE GLOBULAR SYNOVITIS, A CHARACTERISTIC ULTRASONOGRAPHIC PATTERN OF SEROPOSITIVE RHEUMATOID ARTHRITIS

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Background: Rheumatoid Arthritis (RA) and Psoriatic Arthritis (PsA) have a different ultrasound (US) patterns. Synovial changes are characteristic of RA patients and soft tissue changes are more frequently found in PsA. However, no previous studies have analysed if US findings differ between seropositive and seronegative RA patients.

Objectives: To analyse differences in the ultrasound pattern among patients with seropositive and seronegative RA. To assess if proliferative globular synovitis is characteristic of seropositive RA.

Methods: Retrospective Analysis. We collected clinical, epidemiological and ultrasound images of patients with RA who met American College of Rheumatology/European League Against Rheumatism 2010 criteria¹ with bilateral carpal and hand ultrasonography carried out during the last five years. Synovial hypertrophy (SH) and Power Doppler signal (PD) in wrist and hand (1-5 metacarpophalangeal [MCP]) were evaluated. We calculated the SH score (sum of the SH degrees of each joint), PD (sum of the PD degrees of each joint) and the total score (sum of the score of SH and PD) for each patient. We also evaluated the presence of proliferative globular synovitis, defined as big synovial hypertrophy with exophytic growth and a convex upper limit.

Results: 145 RA patients were collected. 80% were women. Mean age was 59.06 (14.8) years and the mean time of disease evolution was

114.6 (112.8) months. 68.3% were RF positive and 74.5% ACPA positive. Overall, 115 of the 145 (79.3%) patients were seropositive for RF/ACPA. 53.1% had radiographic erosions, 73.1% used conventional synthetic Disease-modifying drugs (DMARDs), 29.7% biological therapy, and 57.2% low doses of corticosteroids (<5 mg prednisone). The mean DAS28 was 2.81 (1.14), the number of swollen joints was 3 (3.4), and the C reactive protein (CRP) was 0.99 mg/dl (1.6).

No significant differences between seropositive and seronegative patients in terms of disease activity (swollen joints count [SJC], tender joint count [TJC], CRP, DAS28), treatment (use of corticosteroids, DMARDs, biological), time of evolution or US scores (SH, PD and total scores) were found. Globular synovitis was present in 62% and 13.7% of seropositive and seronegative RA patients, respectively ($p < 0.0001$).

Globally, 75 (51.7%) out of 145 patients had "globular" synovitis by US (Figure 1). 71 out of 75 patients were RF/ACPA positive (94.6%). Only four patients with seronegative RA had this US pattern ($p < 0.0001$). Furthermore, patients with "globular" synovitis had more erosions (72% vs 33%, $p < 0.0001$), higher SJC (3.3 vs 2.5, $p = 0.013$) and higher SH and PD scores ($p = 0.0001$).

Conclusion: The presence of proliferative globular synovitis was significantly associated with the presence of RF/ACPA in patients with RA. This US pattern identified a subgroup of RA patients with poor prognosis: more erosions and greater inflammatory activity both at clinical and ultrasound level.

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CORRELATION BETWEEN ULTRASOUND AND STANDARD RADIOGRAPHY AND BETWEEN ULTRASOUND AND CLINICAL DATA IN RHEUMATOID ARTHRITIS

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Background: Early diagnosis in Rheumatoid Arthritis (RA) is essential in order to quickly introduce a background treatment to prevent joint destruction. In recent years, ultrasound has become an essential part of the initial assessment of polyarthritis because of its superior sensitivity to clinical examination and standard imaging for the investigation of synovitis, tenosynovitis and erosions.

Objectives: To evaluate concordance between clinical examination, standard radiography and joint ultrasonography in a heterogeneous group of patients with RA.

Methods: 40 patients were included in a prospective, transverse and monocentric study conducted in the radiology department of Farhat Hached University Hospital in Sousse over a period of 03 months whatever the level of activity of the disease, the duration of evolution or the treatment received. For each patient, 24 joints were evaluated for a total of 960 joints. Synovitis was scored using clinical examination, B-mode ultrasound, and pulsed Doppler. Concordance between joint swelling assessed by clinical examination, synovial thickening assessed by E-B and inflammation assessed by PD was evaluated by calculating the Kappa coefficient (k). A comparison between the reliability of ultrasound versus standard imaging was evaluated for the detection of bone erosions. The onset of RA, stage, and ultrasound score were assessed by Spearman coefficient.

Results: 960 joints were studied. The mean age was 54.6 years. The sex ratio was 0.29. The mean duration of illness was 3.4 months. Clinical examination revealed 207 active synovitis versus Ultrasonography: 474 active synovitis. The concordance between clinical examination and ultrasound was very low at the metacarpophalangeal (MCP) (<0.1), low at