stiffness (n=11) an increase of ^{18}F -FDG uptake in shoulders was observed. Twenty-three patients of thirty-two patients (71.8%) with ^{18}F -FDG uptake in hips had pelvic girdle pain. The remaining localizations of ^{18}F -FDG uptake in PET/CT scans did not show significant correlations with clinical symptoms.

Clinical manifestation/location of FDG uptake	F-FDG uptake		
	Positive, n/N (%)	Negative, n/N (%)	P
Shoulder girdle pain (n=40)/			
Shoulder	27/45 (60.0)	13/30 (43.3)	0.16
Sternoclavicular joints	22/33 (66.7)	18/42 (42.9)	0.04
Cervical interspinous bursae	6/9 (66.7)	34/66 (51.5)	0.49
Neck pain (n=12)/			
Shoulder	8/45 (17.8)	4/30 (13.3)	0.61
Cervical interspinous bursae	2/9 (22.2)	10/66 (15.5)	0.63
Morning stiffness (n=11)/			
Shoulder	11/45 (24.4)	0/30 (0.0)	0.002
Sternoclavicular joints	7/33 (21.2)	4/42 (9.5)	0.20
Cervical interspinous bursae	3/9 (33.3)	8/66 (12.1)	0.12
Pelvic girdle pain (n=42)/			
Hips	23/32 (71.8)	19/43 (44.2)	0.02
Lumbar interspinous bursae	18/29 (62.1)	24/46 (52.2)	0.40
Subtrochanteric bursae	11/20 (55.0)	31/55 (56.4)	0.92
Ischial tuberosities	10/19 (52.6)	32/56 (57.1)	0.73
Pubic symphysis	3/4 (75.0)	39/71 (54.9)	0.63
Inflammatory low back pain (n=20)/			
Hips	10/32 (31.3)	10/43 (23.3)	0.44
Lumbar interspinous bursae	10/29 (34.5)	10/46 (21.7)	0.22
Ischial tuberosities	3/19 (15.8)	17/56 (30.4)	0.26
Subtrochanteric bursae	7/20 (35.0)	13/55 (23.6)	0.33
Pubic symphysis	3/4 (75.0)	17/71 (23.9)	0.06
Diffuse lower limb pain (n=35)/			
Knees	16/33 (48.5)	19/42 (45.2)	0.78
Subtrochanteric bursae	8/20 (40.0)	27/55 (49.1)	0.49
Ischial tuberosities	9/19 (47.4)	26/56 (46.4)	0.94
Hips	15/32 (46.9)	20/43 (46.5)	0.98

Conclusions: In patients with PMR, the presence of shoulder girdle pain seems to correlate with F- ^{18}F FDG uptake in sternoclavicular joints, morning stiffness with ^{18}F -FDG uptake in shoulders and pelvic girdle pain with ^{18}F FDG uptake in hips. No other significant correlations were found between any other symptom and ^{18}F -FDG uptake.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.4968

SAT0650

MUSCULOSKELETAL ULTRASOUND IN FIRST DEGREE RELATIVES OF RHEUMATOID ARTHRITIS PATIENTS

E. Soliman^{1,2}. ¹Internal Medicine, Rheumatology and Clinical Immunology., Faculty of Medicine, Alexandria, Egypt; ²EULAR Certified MSUS Trainer. Rheumatology postgraduate diploma student, University of South Wales, South UK

Background: Preclinical phase of rheumatoid arthritis (RA) is characterised by a state of autoimmunity and inflammation. MSUS is known for its ability to detect subclinical synovitis, but changes in first degree relatives (FDR) are not yet defined.

Objectives: To investigate the presence of abnormal MSUS findings in FDR of RA who are free of clinical disease.

Methods: Study included 20 RA patients, and 25 of their FDR without evidence of arthritis. All were subjected to full history taking with special emphasis on joint symptoms, and joint examination. Measurements of ESR, CRP, RF and anti-CCP were performed in all and MSUS scan using the 7 joint ultrasonography (US7) score¹

Results: Mean age in FDR 33.1±13.4 years, and in RA was 39.50±13.43 years with a mean disease duration of 11.95±8.36 years. All RA (100%) had symmetrical, polyarthralgia and/or arthritis, mostly involving small joints of hands and feet. 8/25 FDR (32%) had arthralgia that included different joints. While 17/25 FDR (68%) were asymptomatic. None of FDR had arthritis as it was an exclusion criteria. MSUS findings were detected in 16/20 (80%) RA and in 10/25 (40%) FDR. Of whom 3/10 FDR (12%) had arthralgia and 7/10 (28%) were asymptomatic. Synovitis was the commonest MSUS finding in RA (n=16, 80%), and in their FDR (n=10, 40%). Tenosynovitis was present in 5 (25%) RA and only one (4%) FDR. Erosions were detected in 9 (45%) of RA and one (4%) FDR in the 2nd MCP. In RA the wrist was most common joint to be involved on MSUS (n=14, 70%), followed by 2nd MCP and 2nd MTP joints in 11 (55%), 5th MTP joint in 8 (40%), 3rd MCP joint in 6 (30%), 2nd PIP joint in 4 (20%), with least involvement in the 3rd PIP joint in 3 (15%) of RA. In FDR the wrist was also the most commonly involved joint on MSUS and 2nd MTP joint in 6 (24%), followed by 2nd MCP joint in only 1 (4%). Whereas, the 3rd MCP, 2nd and 3rd PIPs and 5th MTP joints were spared.

US7 score in RA and FDR are shown in table 1. US7 erosion score correlated significantly with disease duration in RA. Anti-CCP significantly correlated with all parameters of US7 and RF with the tenosynovitis GS (grey scale) score. While, in FDR there was no statistical significant correlation between US7 score with any of the inflammatory or seromarkers.

Abstract SAT0650 – Table 1. US7 Joint score in RA and FDR

US7 score	RA (n=20)	FDR (n=25)	P
Synovitis GS	5.15±4.26	0.64±1.04	<0.001*
Synovitis PD	2.05±2.54	0.24±0.83	0.003*
Tenosynovitis GS	0.35±0.75	0.04±0.20	0.040*
Tenosynovitis PD	0.30±0.80	0.0±0.0	0.048*
Erosions	1.60±3.10	0.04±0.20	0.001*
Total score	9.45±7.21	0.96±2.01	<0.001*

Shown values are mean ±SD. p: p values for Mann Whitney test for comparing between the two groups*. Statistically significant at p<0.05

Conclusions: This study confirms the presence of inflammatory synovial changes in FDR of RA who are free of clinical disease. This strengthens the concept of FDR as pre-RA. US7 score is a useful screening tool to identify subclinical synovitis in at-risk individuals. While in RA, US7 score is significantly correlated to disease duration and autoantibodies. More long term studies on FDR are needed for establishing the predictive value of abnormal MSUS findings for the development of persistent arthritis.

REFERENCE:

- [1] Backhaus M, et al. Evaluation of a novel 7-joint ultrasound score in daily rheumatologic practice: A pilot project. *Arthritis Care Res* 2009;61 (9):1194–201.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.2349

SAT0651

CAROTID ULTRASOUND IN PATIENTS WITH ARTHRITIS: ¿IN WHICH PATIENTS DOES IT RE-STRATIFY CV RISK?

F. Sivera, N. Martinez-Alberola, R. Martin-Domenech, G. Albert-Espi, C. Fernandez-Carballido, T. Pedraz-Penalva. *Dpt Rheumatology, Hospital General Universitario De Elda, Elda, Spain*

Objectives: To explore in which patients with inflammatory rheumatic disease, the findings in a carotid ultrasound result in a change in cardiovascular (CV) risk stratification as compared to the CV risk measured with the SCORE index.

Methods: Longitudinal prospective study in patients included in a program geared at CV risk factor screening followed by optimisation of their treatment. Patients with rheumatoid arthritis (RA), spondyloarthritis (SpA) and psoriatic arthritis (PsA) were included in the program. In a nurse-led single-visit, the existence and adequate control of classic CV risk factors were recorded. SCORE index was calculated and then modified according to EULAR recommendations. CV risks was stratified according to European guidelines. A carotid ultrasound was performed in patients with a low, intermediate or high-risk stratification in order to assess intimal-media thickness (IMT) and plaques. If plaques were detected, CV risk was re-stratified to very high risk.

From this program, patients who had completed the baseline evaluation and the carotid ultrasound were selected. The characteristics of patients with findings in carotid ultrasound that allowed re-stratification to those without these findings were compared.

Results: A total of 181 patients have completed the baseline work-up, including the carotid ultrasound. 122 (67%) of the patients were women with a mean age of 55 (±11) years of age. Included patients had RA (n=96, 53%), SpA (n=37, 20%) or PsA (n=48, 27%).

A diagnosis of DM was performed in 19 (10%), hypertension in 78 (43%) and hypercholesterolemia in 92 (51%); 38 (21%) were active smokers and 63 (35%) were obese (BMI >30). Mean SCORE index (modified according to EULAR recommendations) was 2.4 (±1.7). Risk stratification before ultrasound was 145 (80%) patients with intermediate risk and 36 (20%) with high risk.

Carotid ultrasound imaging showed plaques in 43 patients (bilaterally in 14). In these, risk was re-stratified as very high risk. Overall, 11 patients showed a thickening of IMT; all presented plaques as well. Final risk stratification after including