patients. Enthesitis (11%), uveitis (11%), Chron's disease (7%), dactylitis (3%), and psoriasis (3%) was also noted. Nearly %30 patients required non IL-1 biologic therapy (BTx) to control SpA symptoms (axial 70%, peripheral 30%). 40% of the patients needed to switch non IL-1 BTx to another biologic agent because of lack of efficacy on SpA symptoms (25%) or due to the adverse event (25%) and active FMF not responding to non IL-1 biological agent (50%).

Conclusion: We showed the following: 1) more female predominance in FMF-SpA patients compared to classic SpA, 2) FMF-SpA patients had lower frequency of HLA B27, 3) up to %30 of the patients required non-IL-1 BTx to control SpA symptoms and 4) in patients on non IL-1 BTx FMF symptoms responded in 80%.

Table 1. The clinical characteristics of FMF-SPA patients

Age*	45.1±16.4
Male, n (%)	16 (57.2)
SpA symptom duration, years*	9.5±7.0
FMF symptom duration, years*	12.6±9.6
HLA-B27 positivity, n (%)	5 (29.4)
Mainly axial involvement, n (%)	21 (75)
Mainly peripheral involvement, n (%)	7 (25)
mNY positivity, n (%)	15 (53.5)
MEFV (M694V) mutation	18
MEFV (non M694V) mutation	19
Amyloidosis, n (%)	4 (14.2)
Non IL-1 biological treatment for SpA symptoms, n (%)	10 (35.7)

*(mean ±S.D.)

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Diagnostics and imaging procedures

AB1072

ROLE OF ULTRASOUND IN DETECTION OF SHOULDER JOINT PATHOLOGIES IN ASYMPTOMATIC RHEUMATOID ARTHRITIS PATIENTS

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Background: Rheumatoid arthritis (RA) is a chronic inflammatory disease that results in progressive destruction of structural components of the joints¹. It commonly affects the shoulder leading to pain, tenderness and decreased range of motion². Increased shoulder pain has been found to correlate strongly with disease severity³, however there is little information available in the literature regarding shoulder pathologies in asymptomatic RA patients.

Objectives: To determine the prevalence of pathologies in asymptomatic shoulders in rheumatoid arthritis patients and role of ultrasound to detect it.

Methods: A cross-sectional study including two groups, first group included 36 RA patients, meeting the ACR/EULAR classification criteria for RA with no shoulder complaints. The second group included 36 healthy control subjects of similar age groups and sex, with no shoulder complaints. They were recruited from rheumatology outpatient clinic in Mansoura University Hospital. Only asymptomatic shoulders of both groups were examined clinically by inspection, palpation and special tests, then examined by ultrasound using Toshiba Xario 200 machine with 13 MHz superficial probe including biceps tendon, subscapularis tendon, supraspinatus tendon, subacromial subdeltoid (SASD) bursa, infrapinatus tendon, posterior glenohumeral joint for effusion or synovitis, acromioclavicular joint and humeral head for erosions. Findings of both groups were compared to each other.

Results: Asymptomatic shoulders in RA patients showed significant number of pathologies in 72% of the examined patients in comparison with healthy subjects (17%). According to frequency, humeral erosions were detected in 12 patients (33%), acromioclavicular osteoarthritis in 8 patients (22%), biceps tenosynovitis, supraspinatus tendinopathy, glenohumeral effusion in 6 patients (17%),

subscapularis tendinopathy in 4 patients (11%), SASD bursitis in 2 patients (6%), Infrapinatus tendinopathy in 1 patient (3%).

The healthy group showed less number of pathologies including supraspinatus tendinopathy 3 (8%), acromioclavicular osteoarthritis 2 (6%), humeral erosions 1 (3%).

A) Ultrasound scan of supraspinatus tendon longitudinal view and SASD bursa of asymptomatic shoulder shows SASD bursitis B) Ultrasound scan of supraspinatus tendon longitudinal view in healthy asymptomatic individual shows supraspinatus tendinopathy

Conclusion: A significant high rate of different pathologies can be present in shoulders of RA patients despite negative history and normal physical examination. Ultrasound can be used for early detection and better management before irreversible joint destruction.

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AB1073

DYNAMICS OF X-RAY CHANGES IN THE HIP JOINTS WITH EARLY AXIAL SPONDYLOARTHRITIS PATIENTS.

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Background: in almost half of patients with ankylosing spondylitis (AS) in Russia, damage to the hip joints (HJ) is detected, but the rate of its progression has not been studied.

Objectives: to evaluate the radiological progression of coxitis in patients with early axial spondylarthritis (axSpA) for two years.

Methods: the study involved the patients of the Moscow cohort CORSAIR (Early Spondylarthritis Cohort), which was formed in V.A. Nasonova Research Institute of Rheumatology. We analyzed 62 patients with a diagnosis of axSpA (ASAS criteria 2009), observed for at least 2 years and having survey images of the pelvic bones during inclusion in the cohort and 2 years after the start of observation. The average age at the time of inclusion in the cohort was 29.2 ± 6.4 years with an average disease duration of 23.8 ± 16.2 months, 32 men and 30 women, 92% of patients positive for HLA-B27. All patients received standard anti-inflammatory therapy.

Results: when including out of 62 patients in the study, only one (2%) patient showed X-ray changes in HJ, Fig. 1 (a; b)). After 2 years of follow-up, the number of patients with radiological changes in HJ increased to 13 (21%), Fig. 1 (a; b). Patients were divided into two groups depending on the presence of radiological progression in HJ.

A comparative analysis of the groups revealed that progression is more common in men and in younger people ($p < 0.05$). In other parameters presented in Table 1, the groups did not differ from each other.

Parameter	Δ BASRI hip=0 n=39	Δ BASRI hip >0 n=23	p
Sex (m/w), n	15/24	17/6	<0,05*
Duration of the disease months., Me [25; 75 percentile]	22 [7;36]	24 [18,8;24,8]	>0,05
Age, years, Me [25; 75 percentile]	29 [25,5;32,5]	26,5 [23,2;28,7]	<0,05*
BASDAI, Me [25; 75 percentile]	3,6 [2,1;5,2]	3,45 [1,1;5,2]	>0,05
BASFI, Me [25; 75 percentile]	1,5 [0,5;2,8]	0,7 [0,3;2,4]	>0,05
ASDAS (CRP), Me [25; 75 percentile]	2,5 [1,6;3,35]	2,4 [1,25;3,45]	>0,05
ESR, mm/h, Me [25; 75 percentile]	8 [6;22]	10 [5;28,75]	>0,05
CRP, mg/L, Me [25; 75 percentile]	5,3 [1,3;24,5]	5,2 [1,1; 23,4]	>0,05
Peripheral Arthritis, n%	12 (32%)	5 (22%)	>0,05

Conclusion: it has been shown that in some patients with axSpA already in the first years of the disease, radiological signs of HJ destruction are detected. The progression of coxitis was not dependent on the activity of the disease and was more often detected in men than in women.

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AB1074 FEATURES OF COMBINED USE OF BIOMARKERS AND VISUALIZATION METHODS FOR DIAGNOSIS OF HEART DAMAGE IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: In rheumatoid arthritis (RA), the endocardium is involved in the inflammatory process, which is caused by immunopathogenetic mechanisms involving CD4 +, T-cells and proinflammatory macrophages. Minor changes in the cardiovascular system can be successfully detected by ultrasound in patients with RA.

Objectives: to improve the quality of non-invasive diagnostics of heart disease in patients with RA.

Methods: 57 patients with RA were under observation: 7 men and 50 women aged from 26 to 70 years; mean age 50.45 ± 10.12 years; activity (according to

DAS28) was low for 3.5%, medium for 86%, and high for 10.5%. Immunological examination included determination of serum IgM-RF, CRP, antibodies to cyclic citrulline peptide (anti-CCP), antibodies to modified vimentin (anti-MCV), antibodies to antigen RA33, levels of angiopoietin-like proteins 3 (ANGPTL3) and 4 (ANGPTL4) types (classical ELISA test), as well as the detection of IgG antibodies to 5'-nucleotidase (5'-NT) and xanthine oxidase (XO) (modified ELISA test). Data from ultrasound, magnetic resonance (MRT) and computer (CT) tomography were used in assessing the state of the heart structures.

Results: The pathology of cardiovascular system was diagnosed in 28 (49.1%) patients with RA. Signs of the heart damage were noted in 33.3% of cases (pericarditis and valvular heart disease were most often detected). In groups of patients with RA with elevated levels of antibodies to 5'-NT and XO (compared with RA patients with normal parameters), there was a significantly more frequent heart damage (for antibodies to 5'-NT: $\chi^2 = 3.8$, $p = 0.047$; for antibodies to XO: $\chi^2 = 3.92$, $p = 0.041$). It was discovered that in all patients with an increased level of antibodies to XO, one of the lesions of the heart valvular apparatus of varying severity was noted. According to ultrasound data (usually confirmed by CT and / or MRT), signs of valvular dysfunction were found in 21 (36.8%) patients with RA. The high frequency of mitral prolapse (28.6%) may be associated with the presence of a chronic inflammatory process that is able to accelerate the development of atherosclerosis and heart disease in RA patients. A tendency to an increase in the prevalence of mitral prolapse in patients with a longer duration of the disease ($p = 0.062$) and with high levels of serum ANGPTL4 ($p = 0.058$) was found.

One of the main factors leading to the development of vascular pathology in RA is the accumulation of reactive oxygen intermediate. Antibodies to XO can affect the biochemical activity of the enzyme in the serum of patients with RA, stimulating the increased formation of O-form XO, which has a pronounced prooxidant effect (especially to lipids). ANGPTL4, acting as a potent inhibitor of endothelial lipoprotein lipase, can suppress the release of non-esterified fatty acids and their transfer to the heart muscle.

Conclusion: To identify subclinical signs of involvement of cardiovascular system in the pathological process in the early asymptomatic stages of RA, it is advisable to use imaging techniques in combination with immunological markers of heart damage, which can be especially useful for screening, diagnostic evaluation and determining cardiovascular risk.

Disclosure of Interests: None declared

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AB1075

PRESENCE POWER DOPPLER ULTRASOUND AS A PREDICTOR OF RADIOGRAPHIC DAMAGE IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: Rheumatoid arthritis (RA) is a chronic inflammatory disease that leads to destructive changes and dysfunction of the joints. Ultrasound (US) is used in current practice as an early diagnostic method for detecting structural damage to articular surfaces. US changes in early RA are considered as one of the ways of predicting disease outcomes.

Objectives: to detect power doppler (PD) contribution in evaluation of radiographic RA progression in long term.

Methods: 85 RA pts, mean age 53,0 [44,0; 61,0] yrs, mean disease duration 8 [4; 24] months were treated by Treat-To-Target concept. After first year of therapy management was following real clinical practice rules until the termination of the study (4 years FUP). The wrist, MCP2 and MCP3, PIP2, PIP3, MTP2 and MTP5 joints of the clinically dominant side were examined by US (GS and PD). Clinical, laboratory parameters and US examination was performed at baseline, at Mo 3, 6, 9 and 12. The X-ray was conducted before treatment and in the end of the study. Structural damage progression was evaluated by change in the Sharp van der Heijde score (Δ SHS) between baseline and 4 year.

We categorized pts into 5 groups according to the occurrence of positive PD: 1) without PD throughout the observational period [the negative (N)], 2) positive PD limited to the period from the baseline to Mo 3 [the therapeutic response (R)], 3) positive PD limited to the period from the baseline to Mo 6-9 [the therapeutic late-response (LR)], 4) intermittent occurrence of PD in the observational period [the intermittently positive (IP)] and 5) with persistent positive PD throughout the observational period [the persistently positive (PP)].

Results: 80% of pts had PD synovitis at baseline. PD-synovitis dropped from 2 [1,0; 6,0] to 0 [0,0; 2,0] scores at Mo 12. RA progression by 4 years FUP was identified in 13% of pts. The X-ray erosion score at 4 years FUP in these groups – N, R, LR, IP and PP – were dependent by PD from baseline to Mo 12 (mean level 1 [0; 2], 2 [0; 4], 3 [0; 5], 1 [0; 2] and 4,5 [1; 10] respectively), but statistically significant differences were found between N and PP groups.