Conclusion: The fatigue VAS and FACIT-F are easy, brief and valid measures for monitoring this symptom and its effects on patients with RA. A fair agreement was noted between the two scores.

Disclosure of Interests: None declared

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AB0176

PATHOLOGICAL PHENOTYPES OF BODY COMPOSITION IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: Inflammation, decreased physical activity, hormonal disorders, and the use of glucocorticoids lead to changes in the composition of the body in rheumatoid arthritis (RA). Various combinations of decreased muscle and bone mass and increased adipose tissue have led to the release of various pathological phenotypes of the composition of the body.

Objectives: To determine the frequency of pathological phenotypes of body composition in patients with RA.

Methods: The study included 79 women with RA, with a median age of 60 y.o. [55; 65]. 92% of the women were postmenopausal. The median duration of the disease was 9 years [3; 11]. Basic anti-inflammatory therapy was received by 81% of patients. Methotrexate was used most often as the basic therapy – in 52% of cases. 49% of patients were treated with glucocorticoid drugs. All patients underwent dual-energy X-ray absorptiometry. The mineral density of the tissues was determined in the standard measurement areas - the spine and the proximal thigh, and the content of muscle and adipose tissue was analyzed. We calculated appendicular muscle mass (AMM), which is the sum of upper and lower limb muscle mass and appendicular muscle index (AMI), the ratio of appendicular muscle mass to the square of height. AMM < 15 kg, AMI < 6 kg / m² corresponds to sarcopenia.

Results: The average AMM was 17.8±3.0 kg. 18% patients had AMM < 15 kg / m². The average AMI was 6.8±1.0 kg / m². 25% patients had AMI < 6 kg/m². The average body mass index (BMI) was 27.6±4.8 kg/m². 37% patients were overweight (25 ≤ BMI < 29.9 kg/m²), 28% of women had a BMI corresponding to obesity. The average fat content was 28.2 kg. 71% of women had an obesity, according to X-ray absorptiometry, which is 2.5 times higher than the number of cases of obesity detected by BMI. A decrease a bone mineral density (BMD) was found in 73% of women, including osteoporosis in 25%. The most frequent phenotype was osteopenic obesity (Table 1), which was detected in almost 40% of patients. Isolated osteoporosis (16.5%) and obesity (17.7%) and osteosarcopenic obesity (16.5%) were found with approximately the same frequency. Osteosarcopenia was found in 9% of patients. In 4%, no changes in the compositional composition of the human body were detected.

Table 1. Pathological phenotypes of body composition

Pathological phenotypes of body composition	n=79
Osteoporosis, n (%)	13 (16,5)
Obesity, n (%)	14 (17,7)
Osteosarcopenia, n (%)	7 (8,9)
Osteopenic obesity, n (%)	29 (36,7)
Osteosarcopenic obesity, n (%)	13 (16,5)

Conclusion: The overall frequency of pathological phenotypes of body composition was high and amounted to 96.2% in women with RA. The most common pathological phenotype was an osteopenic obesity characterized by a decrease in BMD and an increase in fat mass.

Disclosure of Interests: None declared

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AB0177

ANXIETY-DEPRESSIVE SPECTRUM IN PATIENTS WITH RHEUMATOID ARTHRITIS AND ANKYLOSING SPONDYLITIS

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Objectives: to assess the frequency of occurrence of the anxiety-depressive spectrum in patients with rheumatoid arthritis and ankylosing spondylitis.

Methods: A survey was conducted of 44 patients aged from 21 to 57 years (average age - 42.3 ± 6.7 years), who were treated at GAUZ KO OKGGV. All patients had a verified diagnosis of RA and AS according to the ACR criteria and received treatment with basic drugs. The control group consisted of 40 people comparable in age and sex, without concomitant pathology of RA and AS.

The depression screening card, the subjective well-being scale, and the hospital anxiety and depression scale (HADS) were used to assess and detect anxiety-depressive syndrome. The assessment of the condition is carried out over the last 2 weeks, which corresponds to the temporary diagnostic criterion for depression.

The Depression Screening Scale is a 35-item self-questionnaire that assesses 7 categories of signs: sleep and appetite disorders, anxiety, emotional instability, cognitive impairment, loss of self, guilt, and suicidal tendencies. A total score of 65 and above indicates a high likelihood of depression.

The Subjective Well-Being Scale is a psychodiagnostic screening tool for measuring the emotional component of subjective well-being or emotional comfort.

Hospital Anxiety and Depression Scale Zigmond A.S., Snaith R.P. was developed for the primary detection of depression and anxiety in a general medical practice. The HADS scale consists of 14 statements with 4 possible answers and includes two parts: anxiety and depression. The sum of points of 8 or more is regarded as "subclinically expressed anxiety / depression", 11 or more points - "clinically expressed anxiety / depression".

Results: According to the results of the depression screening questionnaire, 34 (77.3%) patients with RA and AS showed signs of depression, while in the control group only 6 (15%) patients tested positive for the presence of depressive disorders. According to the data obtained when assessing the scale of well-being in the main group, 26 (59.1%) patients showed signs of emotional discomfort (the indicator was 80% or more), in the control group - in 6 (15%). Using the hospital scale of anxiety and depression HADS, anxiety-depressive syndrome was detected in 36 (81.8%) patients with RA and AS: 16 (44.4%) patients had anxiety, 20 (55.6%) - depression, of them, subclinically expressed anxiety and depression were observed in 10 (27.7%) and 12 (33.3%) people, respectively. Anxiety-depressive syndrome in the control group, according to the HADS questionnaire, was detected only in 8 (20%) patients, of whom 4 (10%) patients had subclinical anxiety and 4 (10%) had signs of depression. No clinically pronounced anxiety and depression were registered in the control group.

Conclusion: In most patients with rheumatoid arthritis and ankylosing spondylitis, anxiety-depressive disorders have been identified, which can directly affect both the course of the disease itself and the development of various complications. Timely diagnosis of mental disorders and close cooperation of rheumatologists, psychiatrists and psychologists in the selection of adequate therapy can improve the course and prognosis of the disease.

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AB0178

COMORBIDITIES IN RHEUMATOID ARTHRITIS: DO THEY INTERFERE WITH MYOCARDIAL FUNCTION?

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Background: Patients with rheumatoid arthritis are at increased risk for cardiovascular disease (CVD). The early myocardial dysfunction in RA patients may be detectable sooner using speckle-tracking echocardiography to evaluate ventricular strain especially the global longitudinal strain (GLS), this has provided more comprehensive information on ventricular dysfunction in these patients.

Objectives: In the present study, we evaluated comorbidities that interfered the most with the GLS in rheumatoid arthritis patients.

Methods: The study population was comprised of a case group (36 patients with rheumatoid arthritis with no history of CVD and normal LVEF in the outpatient population of the Rheumatology department in the military hospital of Tunis) and a matched control group (individuals without a history of rheumatoid arthritis or cardiac abnormalities referred for clinical check-ups). In both groups, 2D and 3D echocardiographic examinations were performed by a single cardiologist to assess cardiac functional parameters.

Results: Anemia (36%) was found to be the most common comorbidity followed by diabetes mellitus (25%), arterial hypertension (17%) and dyslipidemia (17%). Myocardial deformation study revealed that rheumatoid arthritis patients had a significantly worse global longitudinal strain than healthy controls (18.99±2.81% vs 20.42±1.33%; P=.015). Moreover, a third of the rheumatoid arthritis patients (and no healthy controls) exhibited subclinical left ventricular systolic dysfunction (GLS<18%).

Anemia (r=-0.368, P=.027), Age (r=-0.365, P=.029), Diabetes mellitus (r=-0.540, P=.001) and E/A (r=0.351, P=.036) were significantly correlated with

GLS in our univariate study. Receiver operating characteristic curve analysis revealed hemoglobin as the best predictor for subclinical LVSD (AUC=0.752, 95% CI: 0.577-0.927, $P=0.02$) when compared to Age and E/A.

Conclusion: This prospective comparative study highlighted the diabetes mellitus and anemia burden on myocardial dysfunction in RA patients.

Disclosure of Interests: None declared

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AB0179

INFLUENCE OF ANTI-CITRULLINATED PROTEIN/PEPTIDE ANTIBODIES (ACPAS) ON ARTICULAR MANIFESTATIONS, DISEASE ACTIVITY AND STRUCTURAL SEVERITY IN ALGERIAN PATIENTS WITH EARLY RHEUMATOID ARTHRITIS

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Background: Anti-citrullinated protein/peptide antibodies (ACPA) are highly specific and sensitive markers for rheumatoid arthritis (RA). There are also suggested to have a more severe rheumatoid arthritis.

Objectives: The aim of this study was to assess the influence of ACPA on disease activity, radiological severity, and functional disability in Algerian patient with early rheumatoid arthritis (RA).

Methods: Consecutive early RA patients (symptom duration ≤ 24 months) recruited were included in the descriptive, longitudinal, prospective study. Demographic, biological, immunological and radiographic data were collected at the time of inclusion in the study. Disease activity as determined by the Disease Activity Score 28-CRP (DAS28-CRP: 4 variables), functional handicap as calculated by Heath Assessment Score (HAQ), and bone and joint damage as evaluated by Sharp-Van der Heijde (SVDH) erosion and narrowing score.

Results: One hundred and sixty-one patients with RA were recruited. Patients mean age 43.71 ± 14 years and mean symptom duration at inclusion was 10.48 ± 7 months. Small and large joints were affected in 64.3%. The mean ESR was 23.53 ± 15.2 mm/1st hour, and the mean CRP level was 19.42 ± 39.8 mg/l. Rheumatoid Factors (RFs) and Anti-Citrullinated Protein Antibodies (ACPAs) were present in 74% and 88% of patients, respectively. The presence of ACPAs was significantly associated with DAS28 ($p=0.004$) and HAQ ($p=0.002$). There was no significant difference in inflammatory markers and radiographic SVDH score between patients with and without ACPAs. Stepwise regression analysis showed that the presence of ACPAs was independently associated with localization when RA affected small and large joint in the same time (OR=5.24; IC 95% 1.224-22.483; $p=0.026$).

Conclusion: These data show that in patients with early RA, ACPAs positivity was significantly associated with articular manifestations, activity disease and functional handicap, but not with structural damage.

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AB0180

A MULTICENTER SELF-CONTROLLED CASE SERIES STUDY INVESTIGATING THE PREVENTIVE EFFECT OF SULFASALAZINE AGAINST PNEUMOCYSTIS PNEUMONIA

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Background: An animal study revealed that sulfasalazine (SSZ) enhances *Pneumocystis* clearance from the lung by accelerating macrophage activity.[1] Although the preventive effect of SSZ on *Pneumocystis* pneumonia (PCP) in patients with rheumatoid arthritis (RA) is reported in case-control studies, some important confounders might remain unmeasured and distort the results. [2-3]. The self-controlled case series (SCCS) method involves only cases and controls fixed confounders automatically.[4]

Objectives: To evaluate the prophylactic effect of SSZ against PCP in patients with RA, controlling unmeasurable confounders by the SCCS method.

Methods: A retrospective study was conducted at five hospitals. Patients with RA who developed PCP between 2003 and 2019 were included. PCP was defined by the following criteria: (1) detection of *Pneumocystis jirovecii* in respiratory specimens by polymerase chain reaction; (2) clinical manifestations (pyrexia, dry cough, dyspnea, or hypoxia); (3) diffuse interstitial infiltrate on chest imaging; (4) absence of prophylaxis for PCP. Incidence rate ratio (IRR) for *Pneumocystis* pneumonia associated with sulfasalazine use was calculated by conditional Poisson regression.

Results: We identified 48 episodes of PCP in 47 cases. Of these, 15 (31.9%) died. Thirty received SSZ in certain periods of their observations (Table 1). While 46 episodes of PCP developed in the period of 168.9 person-years without SSZ use, only one episode of PCP developed in the period of 103.7 person-years with SSZ use. SSZ use had a decreased risk of PCP (adjusted IRR 0.007, 95% CI <0.001-0.067) after adjusted for age group, the use of glucocorticoid, methotrexate, and tacrolimus, and the use of biologic agent or janus kinase inhibitor (Table 2).

Table 1. Characteristic of the 47 patients enrolled in the study.

Male/female, n (%)	14 (29.8)/33 (70.2)
Observational period (years), median (IQR)	72.0 (66.3-79.1)
Lung disease, n (%)	4.7 (1.4-9.5)
Use of sulfasalazine, n (%)	23 (48.9)
Outcome of PCP, death, n (%)	30 (63.8)
Age at the onset of PCP (years), median (IQR)	15 (31.9)

PCP, *Pneumocystis* pneumonia; IQR, interquartile range.

Table 2. Unadjusted and adjusted incidence rate ratio for *Pneumocystis* pneumonia associated with sulfasalazine use.

	Observation length (years)	Episodes of PCP, n (%)	Unadjusted IRR 95% CI)	Adjusted IRR ^a (% CI)
Use of SSZ	103.7	1 (2.1)	0.010 (0.001-0.092)	0.007 (<0.001-0.067)
No use of SSZ	168.9	47 (97.9)	reference	reference

IRR, incidence rate ratio; PCP, *Pneumocystis* pneumonia; SSZ, sulfasalazine.

Conclusion: Our study demonstrated the preventive effect of SSZ against PCP with confounders controlled by the SCCS.

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