AB0173

FACTORS ASSOCIATED WITH FATIGUE AND PERSISTENT FATIGUE IN RHEUMATOID ARTHRITIS

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Background: Fatigue is a common and debilitating symptom in patients with rheumatoid arthritis (RA). Fatigue in RA is poorly understood and appears to be multifactorial. Interactions between three factors were suggested: 'personal', 'disease processes', and 'cognitive, behavioural'.

Objectives: The aim of this study was to determine factors associated with fatigue and persistent fatigue in RA.

Methods: We conducted a longitudinal study including patients with RA (ACR/EULAR 2010). Patients with other acute or chronic diseases that may induce fatigue (such as cancer, infection or depression) were excluded. Patients were evaluated at inclusion (T0) and 12 months later (T12). Demographic and disease-related data were collected: age, gender, professional status, physical activity, disease duration, Rheumatoid Factor (RF), Anti-citrullinated peptides antibodies (ACPA), pain Visual Analog Scale (VAS), Erythrocyte Sedimentation Rate (ESR), C Protein Reactive (CRP), Disease Activity Score 28 (DAS28), and Health Assessment Questionnaire (HAQ). Fatigue was assessed using the Functional Assessment of Chronic Illness Therapy – Fatigue (FACIT-F) which is a short 13-item questionnaire validated in RA. The score FACIT-F ranges between 0 and 52. Fatigue was considered mild if the FACIT-F score was ≥ 40 , moderate if $20 \leq \text{FACIT-F} < 40$ and severe if $0 \leq \text{FACIT-F} < 20$. We defined 'persistent fatigue' as reported fatigue at T0 and T12. A p value inferior to 0.05 was considered significant.

Results: We included 100 patients (84 women and 16 men) with a mean age of 49.5 $\pm$ 10 years old [18-65]. Among them, 25% were professionally active and 15% had a regular physical activity. At inclusion, the mean disease duration was 87.3 months [1-360]. RF and ACPA were positive in 75% and 72.6% of cases respectively. The mean pain VAS was 49 cm [0-100]. The mean levels of ESR and CRP were 38.1 mm [10-120] and 10.8 mg/l [2-61] respectively. The mean DAS28 ESR was 3.68 [1.90-8.33] and the mean HAQ score was 0.90 [0-2.75].

The mean FACIT-F score was 27.1 [0-51] at T0. Fifty-seven percent of patients had moderate fatigue and 26% had severe fatigue. At T12, the mean FACIT-F score was 33.4 [5-50]. Persistent severe fatigue was noted in 17% of patients. A significant negative correlation was noted between FACIT-F score at T0 and the following variables: age ($r=-0.258$, $p=0.01$), pain VAS ($r=-0.605$, $p<0.001$), ESR ($r=-0.621$, $p<0.001$), DAS28 ESR ($r=-0.744$, $p<0.001$), and HAQ ($r=-0.634$, $p<0.001$).

A significant negative correlation was noted between FACIT-F score at T12 and the following variables: age ($r=-0.229$, $p=0.022$), disease duration ($r=-0.296$, $p=0.003$), pain VAS ($r=-0.754$, $p<0.001$), ESR ($r=-0.405$, $p<0.001$), CRP ($r=-0.468$, $p<0.001$), DAS28 ESR ($r=-0.744$, $p<0.001$), and HAQ ($r=-0.678$, $p<0.001$). Fatigue and persistent fatigue were not associated with gender, professional status, physical activity, and immunological profile.

Multivariable analysis showed that DAS28 ESR (OR=-0.157, 95% CI [-4.614;-0.153], $p=0.036$) and HAQ (OR=-0.563, 95% CI [-6.916;-2.995], $p<0.001$) were independently associated with persistent fatigue.

Conclusion: Fatigue is a frequent and complex symptom in RA. Higher disease activity and greater disability are suggested as predictors of persistent fatigue.

Disclosure of Interests: None declared

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AB0174

FATIGUE IN RHEUMATOID ARTHRITIS: A CASE-CONTROL STUDY

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Background: Fatigue is a common symptom in many chronic inflammatory diseases, including rheumatoid arthritis (RA). It is considered one of the most frustrating, uncontrollable, and overwhelming symptoms. However, most of rheumatologists do not assess fatigue despite its clinical significance and its impact on patients' lives.

Objectives: The aims of this study were to determine whether RA patients express more fatigue than healthy controls, and to analyze its correlation with disease activity.

Methods: We conducted a cross-sectional study including patients with RA (ACR/EULAR 2010) and healthy controls matched for sex and age. Patients with other acute or chronic diseases that may induce fatigue (such as cancer, infection or depression) were excluded. Demographic data and the following clinical parameters were collected: pain Visual Analog Scale (VAS), Global Patient

Assessment (GPA), tender joint count (TJC) and swollen joint count (SJC), Erythrocyte Sedimentation Rate (ESR), C Protein Reactive (CRP), Disease Activity Score 28 (DAS28), and Health Assessment Questionnaire (HAQ). Fatigue was assessed using the Functional Assessment of Chronic Illness Therapy – Fatigue (FACIT-F) which is a short 13-item questionnaire validated in RA. The score FACIT-F ranges between 0 and 52. Fatigue was considered mild if the FACIT-F score was ≥ 40 , moderate if $20 \leq \text{FACIT-F} < 40$ and severe if $0 \leq \text{FACIT-F} < 20$. A p value inferior to 0.05 was considered significant.

Results: We included 100 RA patients (84 women and 16 men) with a mean age of 49.5 $\pm$ 10 years old [18-65]. The mean disease duration was 87.3 months [1-360]. The mean pain VAS was 49 cm [0-100] and the mean GPA was 47.8 cm [0-100]. The mean TJC and SJC were 5.3 [0-36] and 1 [0-9] respectively. The mean levels of ESR and CRP were 38.1 mm [10-120] and 10.8 mg/l [2-61] respectively. The mean DAS28 ESR was 3.68 [1.90-8.33] and the mean HAQ score was 0.90 [0-2.75]. Thirty-nine healthy controls were enrolled including 35 women and 4 men with a mean age of 51.2 years old [30-64].

The mean FACIT-F score was 27.1 [0-51] in RA patients versus 46.2 [0-52] in healthy controls ($p<0.001$). Among RA patients, 57% had moderate fatigue and 26% had severe fatigue.

A significant negative correlation was noted between the FACIT-F score and the following parameters in RA patients: TJC ($r=-0.568$, $p<0.001$), SJC ($r=-0.274$, $p<0.001$), pain VAS ($r=-0.605$, $p<0.001$), GPA ($r=-0.658$, $p<0.001$), ESR ($r=-0.405$, $p<0.001$), CRP ($r=-0.149$, $p<0.001$), DAS28 ($r=-0.837$, $p<0.001$) and HAQ ($r=-0.634$, $p<0.001$).

Conclusion: Fatigue was significantly more observed in RA patients. This symptom was correlated with disease activity and disability. It is important to recognize and manage fatigue in order to improve patients' quality of life.

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AB0175

OPTIMAL ASSESSMENT OF FATIGUE IN RHEUMATOID ARTHRITIS: VISUAL ANALOG SCALE VERSUS FUNCTIONAL ASSESSMENT OF CHRONIC ILLNESS THERAPY – FATIGUE

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Background: Fatigue is an important outcome for patients with rheumatoid arthritis (RA). As recommended by the European League Against Rheumatism (EULAR)/American College of Rheumatology (ACR) task force in 2008, fatigue should be measured in all RA clinical trials whenever possible. Despite these recommendations, it is largely ignored and rarely assessed in clinical practice.

Objectives: The aim of this study was to compare the scales being used to measure fatigue in RA.

Methods: We conducted a cross-sectional study including patients with RA (ACR/EULAR 2010). Patients with other acute or chronic diseases that may induce fatigue (such as cancer, infection or depression) were excluded. Demographic and disease-related data were collected. Fatigue was assessed using two scores. The fatigue Visual Analog Scale (VAS) ranging between 0 and 100 cm. Fatigue was considered mild if the fatigue VAS was < 20 cm, moderate if $20 \leq \text{VAS} < 50$ and severe if $\text{VAS} \geq 50$ cm. The Functional Assessment of Chronic Illness Therapy – Fatigue (FACIT-F) which is a short 13-item questionnaire validated in RA. The score FACIT-F ranges between 0 and 52. Fatigue was considered mild if the FACIT-F score was ≥ 40 , moderate if $20 \leq \text{FACIT-F} < 40$ and severe if $0 \leq \text{FACIT-F} < 20$. We used Cohen's kappa (κ) to determine the agreement between fatigue VAS and FACIT-F. The κ result was interpreted as follows: values ≤ 0 as indicating no agreement and 0.01–0.20 as none to slight, 0.21–0.40 as fair, 0.41–0.60 as moderate, 0.61–0.80 as substantial, and 0.81–1.00 as almost perfect agreement. A p value inferior to 0.05 was considered significant.

Results: We included 100 RA patients (84 women and 16 men) with a mean age of 49.5 $\pm$ 10 years old [18-65]. The mean disease duration was 87.3 months [1-360]. RF and ACPA were positive in 75% and 72.6% of cases respectively. The mean pain VAS was 49 cm [0-100]. The mean numbers of tender and swollen joints were 5.3 [0-36] and 1 [0-9] respectively. The mean levels of ESR and CRP were 38.1 mm [10-120] and 10.8 mg/l [2-61] respectively. The mean DAS28 ESR was 3.68 [1.90-8.33].

The mean fatigue VAS was 49.1 cm [5-100]. Fatigue was mild in 9% of patients, moderate in 31% of patients, and severe in 60% of patients.

The mean FACIT-F score was 27.1 [0-51]. Fatigue was mild in 26% of patients, moderate in 57% of patients and severe in 17% of patients.

A fair agreement was noted between the two scores ($\kappa=0.303$, $p<0.001$).

The fatigue VAS and FACIT-F were both correlated with the following variables: pain VAS ($r=0.685$, $p<0.001$ and $r=-0.605$, $p<0.001$), ESR ($r=0.384$, $p<0.001$ and $r=-0.405$, $p<0.001$), and DAS28 ESR ($r=0.684$, $p<0.001$ and $r=-0.744$, $p<0.001$).

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., Snaitch 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