AB0358

PHENOTYPES OF SECONDARY SARCOPENIA IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: Secondary sarcopenia may be caused by low physical activity, eating disorders, chronic inflammation. In patients with rheumatoid arthritis (RA), sarcopenia co-occurs with osteoporosis as well as obesity and, in most cases, both osteoporosis and obesity co-occur with sarcopenia. Therefore, 3 phenotypes of sarcopenia can be identified: sarco-osteoporosis, sarcopenic obesity, osteosarcopenic obesity.

Objectives: The aim of the research was to study the features of sarcopenia and her phenotypes in patients with RA. There were examined 40 women with stage II-III RA, Rtg stage II-III, functional limitation stage II. The patients average age was 40.7±2.25 years.

Methods: The algorithm for diagnosing phenotypes of sarcopenia recommended by the European Working Group on Sarcopenia in Older People (2009) was used. Body mass index was determined. Dynamometry (the measurement of hand-grip strength using handgrip dynamometer) was performed and the evaluation of physical fitness. Serum levels of leptin and creatine phosphokinase MM (CPK MM) fraction were determined. The dual-energy X-ray absorptiometry DEXA (to calculate a T-score) was performed

Results: According to the results of laboratory tests and methods of evaluating functional muscle disorders, 87.5% of patients were diagnosed with sarcopenia. The mean values of dynamometry were within 18.3±0.7 kg being significantly lower as compared to healthy individuals – 28.3±0.5 kg. After the evaluation of physical fitness, the average score was 7.9±0.7, while in healthy individuals, it was 11.3±0.4. The mean CPK MM concentration was 175±2.34 U/L, while in healthy individuals, it was 144±3.5 U/L. The average T-score were within the limits (–1.83±0.17) SD and was significantly lower than in healthy (–0.56±0.10) SD. After conducting studies in 17 patients were diagnosed with osteosarcopenic obesity in 11 – sarco-osteoporosis, 7 – sarcopenic obesity, 5 patients sarcopenia has not been diagnosed.

Conclusions: RA leads to muscle metabolism disorders which result in the development of secondary sarcopenia. Therefore, a high-protein diet, physical exercise, namely aerobic exercise (swimming, cycling) and medical preparations that improve muscle metabolism should be included in therapeutic measures and preparations of calcium.

Disclosure of Interest: None declared

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AB0359

CLINIC PROFILE OF PATIENTS WITH RHEUMATOID ARTHRITIS AND PULMONARY AFFECTION IN A COHORT FROM A UNIVERSITY HOSPITAL

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Background: Pulmonary affection is a serious complication in Rheumatoid Arthritis (RA) with an important impact on mortality and morbidity.

Objectives: To describe the clinical and radiographic characteristics of patients with RA in our centre, and specifically from those with interstitial lung disease (ILD).

Methods: Retrospective analysis of patients with RA and pulmonary affection from a University Hospital with a referral area of 85.000 inhabitants. Clinical, laboratory, imaging and pulmonary function test (PFT) data was recorded.

Results: Data from 85 patients, 37 (43.5%) male and 48 (56.5%) female, were recorded. The mean time from RA diagnosis to pulmonary disease was 9.2 years, with mainly erosive (58.8%) and seropositive (84.7%) were positive rheumatoid factor (RF) and 84.2% anti-citrullinated protein antibodies (ACPA) disease. The 56.5% of the patients were smokers or ex-smokers. PFT results were documented in 75.3% of the patients: diffusing capacity for carbon monoxide (DLCO) baseline values were over 60% in a 38.8% of cases and forced vital capacity (FVC) baseline values were over 50% in a 69.4% of patients. The most frequent High Resolution CT scan pattern was the presence of bronchiectasis (64.7%), followed by ILD (31.8%) and, specifically, the Usual Interstitial Pneumonia pattern (UIP, 66.6%); lung infections (25.8%), rheumatoid lung nodules (22.4%), pleural effusion (15.3%), lung tumours (9.4%) and bronchiolitis (5.8%). The presence of extra articular manifestations as rheumatoid nodules (27%), episcleritis (2.3%) and vasculitis (9.4%) was registered. The coexistence of Chronic Obstructive Pulmonary Disease (COPD) was recorded too (24.7%). Related to treatment, 84.7% of patients had received Methotrexate and in a 40% of cases, at least one

biological disease-modifying antirheumatic drug had been administrated. Though the causes were not registered, a 25.9% of deaths were documented. In parallel we did a subanalysis of ILD related to RA cases, summarised in table 1 (n=27):

Conclusions: Bronchiectasis is the most common pulmonary manifestation of RA patients in our area. The most frequent clinical profile is a non-smoker woman with seropositive disease.

ILD affects approximately one third of RA patients in our area and is an underdiagnosed entity. We consider that it is necessary to establish a screening program to diagnose and treat it early.

Abstract AB0359 – Table 1

Gender, male (%)	44.4%	
RA – pulmonary affection time of evolution (years), mean ±SD	7.5±7.7	
ACPA positive (%)	Yes (88.9%)	No (7.4%)
RF positive (%)	Yes (92.6%)	No (7.4%)
Erosive disease (%)	Yes (59.3%)	No (40.7%)
Smoker or ex – smoker (%)	Yes (48.1%)	No (51.9%)
Baseline FVC (%)	<50% (3.7%)	≥50% (66.7%)
Baseline DLCO (%):<40%	7.4%	
41%–59%	18.5%	
≥50%	40.7%	

Disclosure of Interest: None declared

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AB0360

LEFT ATRIAL DILATION IS INCREASED IN PATIENTS WITH RHEUMATOID ARTHRITIS: A CASE-CONTROL STUDY

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Background: Rheumatoid arthritis (RA) is a chronic, systemic inflammatory disease, which mainly affects synovial joints.¹ Heart structural abnormalities are more prevalent in RA-patients than in general population, such as pericarditis, increased left ventricle mass and valvular disease.² Left atrial (LA) dilation predicts atrial fibrillation and congestive heart failure. It also increases the risk of developing thromboembolic events.³

Objectives: The aim of this study was to determine the prevalence of LA dilation in RA-patients and compare it with matched controls.

Methods: An observational, cross-section, case-control study was designed. Patients who fulfilled 1987 ACR and/or 2010 ACR/EULAR classification criteria for RA, 40–75 years old, with no overlap syndromes or atherosclerotic cardiovascular disease were included. The control group was matched by age, gender and comorbidities. A standard transthoracic echocardiogram was performed by a board-certified cardiologist. LA structure alterations were evaluated according to the American Society of Echocardiography guidelines.

Results: A total of 63 RA-patients and 41 control subjects were included. Demographic characteristics are shown in table 1. LA dilation, defined as a LA indexed volume (LAIV) >34 mL/m², was found in 9 (14.3%) patients of the RA-group, whereas no control subjects presented that condition (p=0.011). Mitral regurgitation was detected in 39 (62%) RA-patients and 7 (17%) control subjects (p<0.001).

Abstract AB0360 – Table 1. Demographic characteristics

	RA (n=63)	Control (n=41)	P
Age, mean±SD	55.26±8.32	53.71±6.16	0.277
Disease duration (years), mean±SD	10.84±8.95	-	-
DAS-28 CRP, mean±SD	11.21±9.36	-	-
Women, n (%)	61 (96.8)	36 (87.8)	0.109
Hypertension	24 (38)	8 (19.5)	0.052
Body Mass Index, mean±SD	28.63±5.04	28.58±4.71	0.964
Active smoking, n (%)	6 (9.5)	3 (7.3)	>0.999
Type 2 Diabetes mellitus, n (%)	6 (9.5)	6 (14.6)	0.533
DAS-28 CRP – Disease activity score 28 using C-reactive protein.			

Abstract AB0360 – Table 2. Echocardiographic findings

	RA (n=63)	Control (n=41)	p
Left atrial dilation, n (%)	9 (14.3)	0 (0)	0.011
Mitral regurgitation, n (%)	39 (61.9)	7 (17)	<0.001
LVMI (gm/m ²), mean±SD	70.96±18	70.29±16.3	0.854
Diastolic dysfunction, n (%)	34 (53.9)	14 (34.1)	0.07
LVCR, n (%)	21 (36.8)	6 (15)	0.022
LVCR or LVCH, n (%)	27 (42.8)	7 (17)	0.01

LVCR – Left ventricular concentric remodelling, LVCH – Left ventricular concentric hypertrophy, LVMI – Left ventricular mass index

Conclusions: LA dilation is more prevalent in RA-patients when compared to matched controls. Prospective studies are needed to evaluate the influence of this condition in cardiovascular outcomes.

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AB0361 THE IMPACT OF OBESITY IN CLINICAL AND ULTRASONIC ACTIVITY OF TUNISIAN RHEUMATOID ARTHRITIS

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Background: Obesity is one of the most frequent comorbidities among patients with rheumatoid arthritis (RA). It has been proposed as a risk factor of poorer response to treatment and lower likely chance of achieving RA disease remission.¹

Objectives: The objective of this study was to evaluate the effect of obesity on clinical and musculoskeletal ultrasound (MSUS) disease activity.

Methods: Cross-sectional clinical and laboratory data were collected on 44 RA patients. MSUS assessment of power Doppler (PDUS) and grey scale (GSUS) hypertrophy and effusion was performed on 11 joints of dominant hand (wrist, metacarpal-phalangeal 1–5 and proximal interphalangeal 1–5). PDUS and GSUS were scored semi-quantitatively on a scale of 0–3. The max score of the views obtained for each joint was computed and then was theses maximums were summed across all 11 joints to obtain total PDUS (range 0–33) and GSUS (range 0–33) scores. DAS28/ESR was calculated. Patients were categorised by BMI (kg/m²): <25 (group 1), 25–30 (group 2), and >30 (group 3). Demographic, clinical and ultrasonographic characteristics were compared across BMI groups. P values <0.05 were considered statistically significant.

Results: The overall cohort was 88.6% female, 43.2% ACPA positive and 63.6% RF seropositive with a mean age of 53.8 and disease duration of 12.9 years. The mean BMI was 28.6. Eighty two percent of patients were on sDMARD, 18.2% were on Biologics, and 68.2% of patients were on prednisone. There were no significant differences in these characteristics across the BMI categories. The overall median and interquartile ranges (IQR): 4.1 (1.3) for DAS28/ESR, 3.9 (4.1) for GSUS scores and 4 (5.1) for PDUS scores. The disease activity as measure was not significantly different across the BMI groups (p=0.61). Both GSUS and PDUS scores were not significantly different across BMI groups. Concerning GSUS score: the median (IQR) scores was 5.3 (5.4) for group1, 4.4 (4.3) for group2 and 2.6 (2.7) for group3 (p=0.41). For the PDUS scores the median (IQR) scores was 6 (8.6) for group1, 4.3 (4.1) for group2 and 2.3 (2.7) for group3 (p=0.37). There was no statistically significant correlation of BMI with ultrasound scores (r = -0.19, p=0.2 for GSUS score and r = -0.22, p=0.14 for PDUS score).

Conclusions: Our study didn't proved differences in clinical or ultrasonic disease activity of RA among BMI. This finding doesn't exclude the hypothesis suggesting that obesity is risk factor of refractory RA which requires a larger number of patients to confirm.

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AB0362 FACTORS ASSOCIATED WITH THE DEVELOPMENT OF ARTHRITIS IN PATIENTS WITH ARTHRALGIAS CLINICALLY SUSPECTED OF EVOLVING INTO ARTHRITIS: EXPERIENCE OF A PRE-ARTHRITIS CLINICS

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Background: Despite the fact that genetic and serological risk factors have been studied in rheumatoid arthritis (RA), the symptoms phase of preclinical RA is poorly characterised. Taking into account the importance of early diagnosis and effective treatment for the prevention of structural damage and long-term disability in RA, it is important to find clinical or image variables that identify patients with clinically suspected arthralgias at risk of developing a chronic arthritis (CSA).

Objectives: To identify baseline clinical, immunological and ultrasound variables in patients with arthralgias clinically suspected of progression to chronic arthritis.

Methods: Longitudinal prospective study of patients with CSA and follow-up from November 2015 in pre-arthritis clinics. Patients were assessed at baseline and every 6 months until 2 years, with clinical, laboratory and ultrasound data using standardised protocols. The criteria for eligible patients for inclusion in the study were: ≤12 months of symptoms onset, inflammatory arthralgias (predominance in nights or mornings, improvement during the day or with movement, and morning stiffness of ≥30 min), and the involvement of small joints of hands or feet. Patients with clinical synovitis at baseline visit, patients with fibromyalgia or osteoarthritis were excluded.

Results: Twenty-six patients were recruited in 26 months of the study (1 male, 25 female), with an average baseline age of 44.7±12.6 years, an average delay time of symptoms to first visit of 8.7±3.3 months, a mean follow-up time of 7.7±8.1 months an average body mass index (BMI) of 27.7±7.2. Five patients had familial background of autoimmune diseases in first degree relatives (RA, psoriasis, inflammatory bowel disease), 6 (23.1%) were seropositive (RF and/or ACPA), 7 (26.9%) had increased baseline acute-phase reactants (PAR), and 11 (47.8%) were smokers or former smokers. Most of the patients reported a progression of the arthralgias (55%) and a subjective joint swelling at some point (70%). Of 24 patients, 8 (33.3%) developed clinical arthritis (7 RA, 1 undifferentiated arthritis), with a longer follow-up (15.7±7.4 vs. 7.5±7.2 months, p=0.016), greater baseline HAQ (11.8±8.3 vs. 3.9±4.8, p=0.033) and higher percentage of moderate inflammatory activity in the baseline ultrasound (83.3% vs. 8.3%, p=0.004), compared to patients that didn't develop arthritis. There was a trend towards a higher seropositivity, (37.7% vs. 18.8%), a higher patient global disease assessment (45±29 vs. 30±27 on a 100 mm scale), higher patient pain scores (using a visual analogue pain 100 mm scale) (58±41 vs. 34±23) among patients who eventually developed arthritis, although not statistically significant. No differences were found with PAR, BMI, age, smoking habit or painful joint count at baseline visit.

Conclusions: In our pre-arthritis clinics of patients with clinically suspicious arthralgias, 33% progressed to arthritis, underlying the importance of these clinics. Functional disability and ultrasound at baseline visit are especially useful in predicting future progression to arthritis. It is necessary to recruit more patients in order to obtain more robust conclusions.

Disclosure of Interest: None declared

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AB0363 RHEUMATOID ARTHRITIS AND SICKLE CELL DISEASE: CLINICAL, BIOLOGICAL, RADIOLOGICAL AND THERAPEUTICS SPECIFIC ASPECTS. A RETROSPECTIVE OBSERVATIONAL STUDY

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Background: Thanks to medical advances in sickle cell disease (SCD) treatments, practitioners have to be aware of new comorbidities, as rheumatoid arthritis (RA).

Methods: We conducted a retrospective, observational and monocentric study about clinical, biological and radiological specific aspects of RA in SCD patients and studied the impact of anti-rheumatic drugs, comparing the number of SCD