Spiroarteriocardiorhythmograph, that was able to synchronously analyse the variability of heart rate (HR), respiration (R), systolic (S) and diastolic (D) arterial pressure, respiratory phase structure, baroreceptor sensitivity and some other cariohemodynamics parameters. Following parameters were calculated: spectrum of fluctuations total power (TP), the activity of suprasegmental (VLF), sympathetic (LF), parasympathetic (HF), cortical (IC) and subcortical (SNCA) contours and sympatho-vagus balance parameters (LF/Hf) in regulation HR, R, S, D, baroreceptor sensitivity (BR), inhale (Ti) and exhale (Te) time (V. Marchenko, 2004).

Results: Different severity dysregulation of CRS at all levels is typical for the AS patients, which expresses in decrease of the variability of the basic contours of regulation of heart rate, respiration, systolic and diastolic blood pressure with a shift of sympatho-vagal balance in favour of parasympathicotonia, reduction baroreceptor sensitivity. The heterogeneity of the analysed groups according to the parameter LF/HF_{HR} is shown. The ratio of patients with parasympathotony, normotony, sympathotony in groups made up, respectively, in HP (34:48:18), RA (23:54:23), AS (55:28:17), OP (29:53:18). It is established that a significant number of AS patients had parasympathetic type of regulation, and the rest of the groups were dominated by patients with normotonic type of regulation. It is shown that in groups of patients neurovegetative regulation system was more stringent, as evidenced by the increase in their number of reliable correlations compared with the group of healthy individuals. The features of dysregulation in each analysed group were established, the nature of which requires further analysis. Significant correlations ($\tau > \pm 0.45$; $p = 0.029$) between the parameters of the neurovegetative regulation of cardiorespiratory system on the one hand and the clinical and laboratory parameters of inflammatory activity (in the first place, DAS28, CRP, ESR) on the other hand in patients with RA; with parameters BASDAI, the activity of the inflammatory process (ESR, CRP) in patients with AS; densitometric parameters in patients with OP were identified. The close connexion between vascular component and the activity of the inflammatory process is shown, which may be a manifestation of endothelial dysfunction.

Conclusions: Thus, the method of variability of cardiorespiratory allows to detect the neurovegetative dysregulation of the cardiorespiratory system in rheumatologic patients and can be recommended for the evaluation of the system of regulation in general, the possible role of its disorders in the pathogenesis of clinical manifestations of diseases, and assessing the dynamics of regulatory processes in the treatment of patients.

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AB0330 OSTEOPOROSIS, SARCOPENIA AND OSTEOSARCOPENIA IN WOMEN WITH RHEUMATOID ARTHRITIS

A. Feklistov, N. Demin, N. Toroptsova. *Nasonova Research Institute of Rheumatology, Moscow, Russian Federation*

Background: Rheumatoid arthritis (RA) is a systemic inflammatory disease associated with polyarthritis, progressive joint damage, and physical impairment that can lead to osteoporosis and sarcopenia, increasing the risk of fractures and leading to a greater loss of autonomy in RA patients.

Objectives: To assess frequency of osteoporosis, sarcopenia and osteosarcopenia in women with RA.

Methods: 40 female patients with RA (mean age 63 ± 7 years) and 40 female controls without RA (mean age 64 ± 9 years) were enrolled in this study. Body composition and bone mineral density (BMD) in lumbar spine and proximal hip were assessed by using dual X-ray absorptiometry (DXA, Hologic Discovery A). Sarcopenia in women was defined as a skeletal muscle index (SMI) $\leq 5.67 \text{ kg/m}^2$ and osteosarcopenia – if sarcopenia and low BMD were present together.² The participants performed Short Physical Performance Battery (SPPB) and handgrip strength was measured. Body mass index (BMI) and Disease Activity Score (DAS28) were calculated.

Results: Low BMD at least in one of measured area was found out in 19 (48%) RA persons and in 18 (45%) controls. Sarcopenia occurred in 10 (25%) RA patients and in 5 (12.5%) people without RA ($p > 0.05$). Among them osteosarcopenia was found in 6 (15%) RA women and 2 (5%) controls. Skeletal muscle index (SMI) was lower in patients with RA (6.43 ± 0.978) than in controls (7.01 ± 1.064 , $p < 0.05$). In RA patients SMI had a positive correlation with BMI ($r = 0.58$, $p < 0.05$) and handgrip strength ($r = 0.34$ for right, $r = 0.30$ for left, $p < 0.05$ for both). Sarcopenia was more common in RA patients who were normal or underweight than in those who were overweight or obese according to their BMI ($p < 0.01$). There was no correlation between SMI and DAS28, drug use, frequency of falls during the last year, SPPB in the RA group

Conclusions: In RA patients 48% had osteoporosis and 25% – sarcopenia, among them 15% women – osteosarcopenia. The risk of sarcopenia and osteosarcopenia was higher in nonobese patients.

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AB0331 INCIDENCE OF MALIGNANCY IN PSORIATIC AND RHEUMATOID ARTHRITIS PATIENTS LIVING IN NEWFOUNDLAND AND LABRADOR

A.F. Lewis¹, I. Landells², G. Mugford³, M. Khraishi³. ¹*Clinical Epidemiology*, ²*Dermatology*, ³*Rheumatology, Memorial University of Newfoundland, St. John's, Canada*

Background: Rheumatoid Arthritis (RA) and Psoriatic Arthritis (PsA) are reported to be associated with an increased risk of malignancy. Newfoundland and Labrador (NL) has one of the highest cancer rates in Canada. There is a paucity of literature on the prevalence of malignancy in NL patients with PsA and RA.

Objectives: Evaluate the incidence of malignancy in a cohort of PsA and RA patients and compare rates with the general population. Evaluate the impact of therapy of these two diseases.

Methods: Data was extracted from the charts of 200 PsA and 500 RA patients seen at a rheumatology clinic in St. John's between 2011 and 2014. Statistical analyses were performed using SPSS version 21.0 for Windows (IBM Inc.). Person-time Rate (PYs) per 100,000, stratified by age and gender, were used to estimate overall cancer risk and proportions between the two cohorts. Observed rates were compared with Statistics Canada reported general NL rates.

Results: We identified 37 (5.3%) malignancies: 34 (91.8%) solid and 3 (8.1%) hematologic. Mean (SD) age was 58.4 (12.28) and age at diagnoses of disease was 46.8 (12.88). Four hundred and eighty (68.6%) were females. No difference was observed in rates between the study population and the NL general population ($p < 0.3217$). The most common solid tumours were breast 8 (21.6%) and skin 8 (21.6%), followed by five bowel and lung cancers in equal proportions (13.5%). Distribution of cancers between the two cohorts were similar.

Conclusions: The results suggests there is no difference in the cancer rate between our cohorts and the NL general population. We acknowledge study limitations related to shorter duration of follow-up and lower sample size.

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AB0332

COMORBIDITIES PREVALENCE AND CHARLSON INDEX IN A COHORT OF PATIENTS WITH RHEUMATOID ARTHRITIS

A.B. Azuaga-Piñango, R. Castellanos-Moreira, S.C. Rodriguez-Garcia, S. Mandelkova, B. Frade-Sosa, A. Diaz-Castillo, N. Sapena, C. Gonzalez-Delaurens, V. Ruiz-Esquivel, O. Camacho, A. Cuervo, J. Ramirez, M. V. Hernandez, J.A. Gómez Puerta, J.D. Cañete, R. Sanmarti. *Rheumatology, Hospital Clinic de Barcelona, Barcelona, Spain*

Background: The Charlson comorbidity index (CCI) is a prognostic scale, which gives a numerical value that indicates the burden of comorbidities in a patient. This index is obtained from the sum of 19 medical conditions that have been related to mortality and has been validated in several studies. Patients with rheumatoid arthritis (RA) are more at risk than the general population of developing comorbidities. However, these often go unnoticed despite the impact on the disease activity and to treatment response, as shown by different studies such as COMORA.

Objectives: To determine the prevalence of comorbidities in a cohort of patients with RA and estimate CCI.

Methods: Cross-sectional descriptive study, patients diagnosed with RA according to the EULAR/ACR 2010 classification criteria were included. All patients were followed up in a rheumatology service in a tertiary hospital. Comorbidities were obtained from the medical records. To measure comorbidities, CCI was calculated, the diagnosis of RA was not included in the index. We defined three categories of comorbidity according to CCI: 0 (no comorbidity, applied to patients with no previous record of conditions included in the CCI), 1 to 2 (moderate) and 3 or more (severe). Others comorbidities not included in CCI, such as hypertension (HTN), dyslipidemias (DLP), thyroid disease (TD), osteoporosis (OP) were collected.

Results: 130 patients (103 women) were analysed; mean age was 58.6±12.9 years and disease duration of 6.0±4.4 years. 82.8% were seropositive for rheumatoid factor (n: 83) and/or anti-CCP (n: 97). 44.6% had previous smoking history, 22 were current smokers. The most observed comorbidities in our cohort were: overweight and obesity (BMI ≥25; 63%), DLP (38.8%), HTN (31.5%), chronic kidney disease (32.3%; 6.9% ≥Stage III) and chronic lung disease (23.8%). Other diseases included TD (18.5%), OP (17.7%), diabetes mellitus (9.2%) and liver disease (9.2%). Five patients with a history of tumour (2 metastases) and 2 lymphomas in the last 5 years. Four patients had a heart disease, in 3 as an ischaemic event.

According to CCI, 20.8% of the patients had a Charlson 0, 43.8% Charlson 1–2, and 35.4% Charlson ≥3.

Conclusions: In our cohort, despite being a relatively young population, the presence of comorbidities and cardiovascular risk factors is relatively high, in agreement with what has been observed in other studies. 1 out of 3 patients has a severe comorbidity burden.

Disclosure of Interest: None declared

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AB0333

ANALYSIS OF THE ASSOCIATION OF COMPOUND INDICATES OF DISEASE ACTIVITY AND QUALIFICATIONS OF FUNCTIONAL CAPACITY AND QUALITY OF LIFE RELATED TO HEALTH IN PATIENTS WITH RHEUMATOID ARTHRITIS

B.F. Althoff¹, I.A. Pereira¹, T. Fontana¹, Y. Alfaro², C.J. Ferreira¹. ¹Medicina; ²Universidade do Sul de Santa Catarina, Florianópolis, Brazil

Background: The correlation analysis of ICADs with questionnaires of functional evaluation and quality of life is essential, since it is the outcomes that matter to the patients.

Objectives: To evaluate the correlations between ICADs with questionnaires of functional capacity (HAQ) and health-related life quality (SF12).

Methods: Cross-sectional study with 100 out-patients of Santa Catarina, participants of a multicenter cohort, followed between August 2015/January 2016. Evaluated ICADs were: DAS-28 VHS, DAS-28 PCR, SDAI, CDAI, RADAI. The questionnaires were: HAQ and SF12. Tests Qui Square, test t Student, prevalence ratio and Pearson's correlation were used, with reliability interval 95%. Approved by Ethics Committee in Research of UNISUL.

Results: Moderate correlation between ICADs and HAQ (variation r 0,52–0,65). Weak correlation between ICADs and SF12 (Physical: variation r 0,15–0,24 and Mental: variation r 0,40–0,45).

Abstract AB0333 – Tabel 1. Correlation between Laboratory Parameters and Functional Capacity (HAQ) in patients with Rheumatoid Arthritis of Santa Catarina.

Variables	HAQ*
ESR† (mm/1 ^h)	0,238
CRP‡ (mg/dl)	0,287
DAS-28§ ESR	0,580
DAS-28 CRP	0,551
SDAI	0,524
CDAI ¶	0,524
RADAI**	0,655

*Health Assessment Questionnaire † Erythrocyte Sedimentation Rate ‡ C-Reactive Protein § Disease Activity Score-28 || Simplified disease activity index ¶ Clinical disease activity index ** Rheumatoid arthritis disease activity.

Source: Elaboration of the author, 2017.

Conclusions: ICADs correlate poorly with quality of life, assessed by SF12, but moderately with functional limitation, assessed by HAQ.

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AB0334

NEOPLASM RISK IN A RHEUMATOID ARTHRITIS COHORT: A RETROSPECTIVE STUDY

C. Ambrósio, A. Barcelos. *Rheumatology, Hospital Infante D. Pedro-Aveiro, Aveiro, Portugal*

Background: It is well known that the risk of neoplasms is increased in rheumatic patients, especially in Rheumatoid Arthritis (RA), SLE and inflammatory myopathies. Although the relationship between neoplasms and some factors involving the pathophysiology and immunomodulatory therapy of this diseases is well known, we still don't know all the mechanisms underlying this process. Thereby, this theme has been of ongoing interest and research.

Objectives: To determine whether the incidence of neoplasm is increased in patients with RA compared to a matched comparison cohort and to identify risk for any individual malignancy in RA.

Methods: A cohort of 243 RA patients, who fulfilled 1987 ACR criteria for RA and a comparison cohort, sex and age matched without RA (non-RA) were evaluated retrospectively for cancer occurrence. Demographic, epidemiological, clinical, laboratorial and imaging data were collected through medical record review. All paraneoplastic cases were excluded. Descriptive statistics were used to summarise data of the RA and comparator group.

Results: 243 RA patients (mean age 62,9 y, 68,7% female, mean disease duration 10,6 y) were enrolled. 148 RA patients had rheumatoid factor (RF) present