Tableau n°1: Relation between comorbidities and the disease activity parameters of rheumatoid arthritis and Spondyloarthritis

	DAS 28 ESR	BASDAI	ASDAS CRP
Diabetes	p = 0.737	p = 0.633	p = 0.652
High Blood pressure	p = 0.252	p = 0.998	p = 0.323
Obesity	p = 0.565	p = 0.585	p = 0.904
Dyslipidemia	p = 0.332	p = 0.349	p = 0.997
Osteoporosis	p = 0.372	p = 0.989	p = 0.020
Gastrointestinal ulcer	p = 0.829	p = 0.286	p = 0.910

DAS: disease activity score; BASDAI: Bath Ankylosing Spondylitis Disease Activity Index; ASDAS: Ankylosing Spondylitis Disease Activity Score

Conclusion: According to this study, in patients with RA and SpA associated comorbidities may occur more frequently than expected (54%). However, they had no relation to the activity of the disease according to their frequencies or their types, except osteoporosis which was significantly associated with the SpA activity. Identifying these comorbidities may affect the management and treatment decisions for these patients to ensure an optimal clinical outcome.

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AB0263 SEXUAL FUNCTION IN WOMEN WITH RHEUMATOID ARTHRITIS: A CASE-CONTROL STUDY.

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Background: Sexual dysfunction is defined as a change in any component of sexual activity, which may cause frustration, pain and decreased sexual intercourse¹. Rheumatoid arthritis (RA) is a systemic autoimmune disease, which may lead to decline in joint mobility, pain, and fatigue; these impairments may influence the sexual health of patients².

Objectives: The main aim of this study is to determine if there is an altered sexual function in Mexican women with RA and compare if it occurs in a greater proportion than in healthy women.

Methods: A case-control study that included Mexican women between 18 and 65 years, with RA diagnosis (according to ACR/EULAR 2010 criteria) and age-matched controls was performed. Patients were excluded if they couldn't answer the questionnaires reliably or were currently pregnant. They were asked about their sexual activity in the last month, and the Arizona Sexual Experiences Scale (ASEX), Hospital Anxiety and Depression Scale (HADS) and Functional Assessment of Chronic Illness Therapy (FACIT) self-questionnaires were applied; disease activity was assessed by DAS-28. Variables were compared between groups with student T test for independent samples and chi-square.

Results: We included 102 RA patients and 101 controls. Baseline demographic characteristics between groups are shown in Table 1. Women with RA had less sexual activity than controls (48.03% vs. 90.09%, $p < 0.001$). Out of the total women included, the ASEX was applied only to those that had an active sex life, 49 with RA and 91 controls. Sexual dysfunction (> 18 points) was found in 55.1% of women with RA and in 52.74% of controls, with no significant differences ($p = 0.860$); the prevalence of severe fatigue was higher in RA than in the healthy group ($p = 0.009$) (Table 2). Women with RA and sexual dysfunction had higher levels of anxiety ($p = 0.024$) and fatigue ($p = 0.008$) than those with RA without sexual dysfunction; however, no significant difference was found in age, depression and level of disease activity between these groups.

Table 1. Comparison of demographic variables between groups.

	RA GROUP (n=102)	CONTROL GROUP (n=101)	P*
Age, years (±SD)	52.98 (+/-13.36)	52.45 (+/- 8.34)	0.738
Sexual activity in the last month, n (%)	49 (48.03%)	91 (90.09%)	<0.001
Civil status			0.456
Single, n (%)	26 (25.5%)	18 (17.82%)	
Married, n (%)	43 (42.2%)	55 (54.45%)	
Divorced, n (%)	15 (14.7%)	11 (10.89%)	
Domestic partnership, n (%)	5 (4.9%)	4 (3.96%)	
Widowed, n (%)	13 (12.7%)	13 (12.87%)	
Menopause, n (%)	70 (68.6%)	72 (71.28%)	0.760
Has children, n (%)	88 (86.3%)	83 (82.17%)	0.447

T de student or Chi-Square test according to type of variable

Table 2. Difference in means of survey scores and frequencies of abnormal scores between groups.

	RA GROUP (n=49)	CONTROL GROUP (n=91)	P*
ASEX score (±SD)	15.65 +/- 4.82	15.45 +/- 5.07	0.819
Sexual dysfunction, n (%)	27 (55.1%)	48 (52.74%)	0.860
HADS-A, anxiety subscale (±SD)	6.53 +/- 3.95	7.15 +/- 3.98	0.378
HADS-D, depression subscale (±SD)	5.34 +/- 4.12	4.32 +/- 3.20	0.108
Fatigue score (FACIT) (±SD)	34.42 +/- 9.52	39.21 +/- 8.37	0.003*
Severe fatigue symptoms, n (%)	17 (34.69%)	13 (14.28%)	0.009*

T de student or Chi-Square test according to type of variable

* Statistically significant difference.

High scores **HADS**, **ASEX** and low scores in **FACIT** indicate severity.

Conclusion: In this study, women with RA have less sexual activity than healthy women, but no greater sexual dysfunction. Patients with RA and sexual dysfunction have more anxiety and fatigue; but they have no difference in age, disease activity and depression than those with RA and normal sexual function.

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AB0264 ARTERIAL STIFFNESS IN RHEUMATOID ARTHRITIS PATIENTS AS A POTENTIAL PREDICTOR OF EARLY CARDIOVASCULAR AGEING AND MORBIDITY

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Background: Cardiovascular disease (CVD) is one of the most common causes of death in Rheumatoid arthritis patients. Increased arterial stiffness is considered as an independent risk factor of development CVD and a predictor of all-cause morbidity and mortality. Increased arterial stiffness, due to premature vascular ageing, can be observed in patients with chronic inflammatory diseases as well as in RA patients.

Objectives: To evaluate arterial stiffness determined as carotid – femoral pulse wave velocity in rheumatoid arthritis patients. The comparison of traditional and nontraditional risk factor of CVD, disease activity and laboratory findings connected with subclinical atherosclerotic changes.

Methods: We evaluated data of 50 patients with rheumatoid arthritis (39 females, 11male, mean age 57, mean duration of disease of 13years). The arterial stiffness, measured as carotid – femoral pulse wave velocity (PWV), was established with the SphygmoCor system. This non-invasive technique uses the principle of applanation tonometry. Our control group counted 25 healthy male and females with no history of CVD or autoimmune disease. We evaluated the influence of traditional risk factors for CVD as age, smoking, BMI, lipid profile, diabetes mellitus, history of CV and cerebrovascular morbidity to PWV in RA patients. Non-traditional risk factors contained Adiponectin, Fetuin A, Endothelin-1 and Asymmetric dimethylarginine. To measure disease activity was used DAS 28 and inflammatory parameters as a marker of current disease activity. For chronic changes was used X-ray of small joints. Results were correlated with PWV and statistically evaluated.

Results: Mean PWV in Rheumatoid arthritis patients was significantly higher (9.7 m/s) than that in healthy control group (6.7m/s). 49% of RA patients (n=24) had increased arterial stiffness according to their age. 32% patients (n=16) with PWV over 10m/s that indicates aortal function alteration. We didn't find correlation between arterial stiffness and traditional and non-traditional CVD risk factors. Increased PWV was not associated with high disease activity. Patients with higher arterial stiffness according to their age had longer RA history, higher level of rheumatoid factor, were more frequently anti-citrullinated protein antibodies (ACPA) negative and were more frequently treated with biological therapy.

Conclusion: Rheumatoid arthritis patients are in increased risk of CV disease. PWV is considered as an independent risk factor of CVD. We proved increased arterial stiffness and vascular ageing in comparison to healthy controls. We did not find correlation between increased arterial stiffness and disease activity. All CVD risk factor intervention is necessary to improve the prognosis of patients. Further investigation is needed to establish the role of increased PWV in RA patients.

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AB0265

REDUCTION OF APPENDICULAR SKELETAL MASS INDEX IS A PREDICTOR OF FRACTURE IN PATIENTS WITH RHEUMATOID ARTHRITIS BASED ON THE THREE-YEAR FOLLOW-UP DATA OF THE CHIKARA STUDY

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Background: Patients with rheumatoid arthritis (RA) have lower muscle mass¹ and a higher risk of fragility fracture² compared with healthy individuals. The predictors for fractures among baseline data and the chronological changes of disease activity, body composition, and muscle mass are unknown.

Objectives: The predictors for fractures were investigated over a 3-year period in a longitudinal study.

Methods: The 3-year follow-up data from a prospective observational study (CHIKARA study: Correlation research of sarcopenia, skeletal muscle and disease Activity in Rheumatoid Arthritis) were used. The patients' fractures were counted, and correlations between fractures and disease activity, body composition, and sarcopenia were investigated. Muscle mass, body fat mass, total body water, bone mass, and basal metabolic rate were measured using a body composition analyzer. The fracture-free survival rate was calculated. The relationships between fractures and each parameter at baseline and the changes over the 3-year period (Δ) were investigated by univariate and multivariate analyses.

Results: A total of 100 patients (78 female, average age 68 years) were enrolled in this study; 12 patients (10 female and 2 male) had fractures during the 3-year follow-up, and the fracture-free survival rate was 86.9%. The Δ modified Health Assessment Questionnaire (mHAQ), Δ weight, Δ muscle mass, Δ estimated bone mass, Δ basal metabolic rate, and Δ appendicular skeletal muscle index (ASMI) were predictors for fractures. On the other hand, body composition, disease activity, and sarcopenia at baseline were not correlated with fractures (Table 1). The Δ ASMI was an independent predictor for fractures on multivariate analysis (odds ratio:0.015, $P=0.026$). The estimated cut-off value of the Δ ASMI was 0.14 kg/m² on receiver operating characteristic curve analysis (Figure). When the Δ ASMI decrease was greater than or equal to 0.14 kg/m² for three years, the odds ratio of fractures was significantly increased 9.8-fold, compared to a Δ ASMI decrease less than 0.14 kg/m² ($P=0.001$).

Table 1. Predictors for fractures in patients with RA

	Univariate	
	R value	P value
Baseline		
Age, year	0.172	0.087
DAS28-ESR	-0.083	0.411
mHAQ	0.077	0.447
Weight, kg	0.021	0.837
Muscle mass, kg	-0.0035	0.728
Estimated bone mass, kg	-0.020	0.845
Sarcopenia	-0.093	0.356
Change of 3-year period		
Δ DAS28-ESR	0.187	0.088
Δ mHAQ	0.224	0.040
Δ Weight, kg	-0.224	0.045
Δ Muscle mass, kg	-0.253	0.023
Δ Estimated bone mass, kg	-0.236	0.034
Δ Basal metabolic rate, kcal/day	-0.248	0.025
Δ Appendicular skeletal muscle index, kg/m ²	-0.352	0.001

Conclusion: The fracture-free survival rate was 86.9% in this 3-year longitudinal study. It was difficult to predict future fractures from the baseline data. Reduction of the ASMI was an independent predictor for fractures. Alleviating muscle mass loss may prevent fractures.

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AB0266

ANALYSIS OF STRESS AND FATIGUE IN PATIENTS WITH RHEUMATOID ARTHRITIS USING A DIGITIZING DEVICE

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