of ejection fraction values obtained by conventional methods, may be a guide for the clinician in early detection of cardiac dysfunction in RA patients with high DAS-28 score, long disease duration, high Anti-CCP and high RF titers.

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FRI0059 SARCOPENIA IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: Sarcopenia is defined as the decrease in strength, mass and function of muscles and may be related with aging, chronic inflammation or malnutrition. Proinflammatory cytokines may be associated with development of sarcopenia.

Objectives: The aim of this study was to evaluate sarcopenia in patients with Rheumatoid Arthritis (RA).

Methods: One hundred patients with RA (30 Male/70 Female) and 100 healthy controls (30 Male/70 Female) were included in this cross sectional study. According to The European Working Group on Sarcopenia in Older People (EWGSOP2) 2018, three parameters; muscle strength, muscle mass and physical performance, which are evaluated by hand grip strength, Body Impedance Analyzer (BIA) and 6 meters gait speed test, respectively, are used to diagnose sarcopenia. Patients with arthritis in dominant hand joints and ankle joints were excluded. Sarcopenia is defined as the decrease of strength and mass of muscles. On the other hand patients with low muscle strength but normal muscle mass are defined as probable sarcopenia.

Results: The mean age was 58.52±10.95 for patients and 56.62±10.08 for controls (p=0.203). Frequency of probable sarcopenia was 35 (35.0%) in RA and 9 (9.0%) in control group (p<0.001). Results of hand grip and 6 meters gait speed tests were lower in RA patients (p=0.002 and p<0.001 respectively). Frequency of probable sarcopenia was higher in females, older patients and patients with longer disease duration. Disease activity and Health Assessment Questionnaire scores were higher in patients with probable sarcopenia compared with patients with no sarcopenia (p<0.05) (Table 1). In multivariate regression analysis; age, gender and DAS28 ESR/CRP were associated with hand grip strength (p<0.001, R²=0.62) (Table 2).

Table 1. Factors associated with sarcopenia in rheumatoid arthritis

Rheumatoid arthritis group	No sarcopenia (n=65)	Probable Sarcopenia (n=35)	p-value
Sex, n (%)			
Male	24 (36.9)	6 (17.1)	0.04^a
Female	41 (63.1)	29 (82.9)	
Age*	55.00 (25.00–82.00)	63.00 (24.00–82.00)	0.004^b
Disease duration (year)*	4.00 (1.00–37.00)	8.00 (1.00–41.00)	0.037^b
DAS28 CRP*	2.13 (1.08–4.69)	2.55 (1.54–5.56)	0.010^b
DAS28 ESR (mean±SD)	2.63±0.94	3.36±1.00	<0.001^c
CDAI*	5 (0–25)	9 (0–29)	0.012^b
SDAI*	5.09 (0.04–26.04)	9.8 (0.39–31.7)	0.006^b
HAQ*	0.15 (0–1.05)	0.4 (0–19.5)	<0.001^b

^aPearson Chi-Square, ^bMann-Whitney U Test, ^cIndependent Samples T-Test. *Variables given as median (minimum-maximum) DAS: Disease activity score ESR:Erythrocyte sedimentation rate, CRP:C-reactive protein, CDAI: Clinical Disease Activity Index, SDAI: Simplified Disease Activity Index, HAQ: Health Assessmentnet Questionnaire

Table 2. Multivariate analysis for hand grip test in patients with rheumatoid arthritis

	Unstandardized Coefficients		95% CI		Standardized Coefficients	p-value
	B	Std. Error	Lower	Upper	Beta	
Constant	53.65	3.89	45.93	61.37	–	<0.001
Gender	–13.06	1.41	–15.86	–10.26	–0.60	<0.001
DAS28 CRP	–3.21	0.70	–4.61	–1.82	–0.29	<0.001
Age	–0.22	0.06	–0.33	–0.10	–0.23	<0.001

DAS: Disease activity score CRP:C-reactive protein

Conclusion: Loss of muscle strength in patients with RA may be seen frequently. Longer disease duration and higher disease activity should lead to development of sarcopenia due to chronic inflammation. Sarcopenia potentially affects patients' social lives and daily functions and conceive decrease quality of life. Physicians should be aware of development of sarcopenia during the course of the disease, and take into account the preservative and preventive methods against sarcopenia including exercise and control of disease activity.

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FRI0060 EVALUATION OF THE CARDIOVASCULAR RISK IN WOMEN WITH RHEUMATOID ARTHRITIS WITH DUPLEX STUDY OF THE CAROTID AND FEMORAL ARTERIES

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Background: The increasing of the cardiovascular disease (CVD) in patients with rheumatoid arthritis (RA) is well know, even with the absence of traditional coronary risk factors. The ultrasound – duplex scan (USD) is a non invasive technique able to early detect atherosclerotic changes in the blood vessel, that gives the possibly to retard the development of symptomatic CVD.

Objectives: To evaluate the cardiovascular (CVS) risk in patients with RA classified as low risk by Framingham Score (FS), before and after the EULAR 1.5 multiplication factor and stratify with the carotid and femoral USD (intima-media thickness - IMT and atherosclerotic plaques - AP)

Methods: Thirty-five female patients with RA and low CVS risk by FS and 35 healthy women with low CVS risk by FS (control group) were enrolled for the study. All of them submitted to carotid and femoral USD

Results: The groups were homogenous by age and CVS comorbidities -Table 1. Mean age in the diagnosis was 44.57 years, mean disease duration was 12.11 years and mean disease activity was Disease Activity Score 28: 1.91 and Clinical Disease Activity Score: 6.176. In the RA patients group 46% showed changes in the carotid and/or femoral USD compared with 14% of the control group (p = 0.004) –Graphic 1. The USD with abnormalities in RA group 31% of the carotid USD and 81% of the femoral USD (p= 0.005) showed IMT and/or AP. After EULAR 1.5 multiplication factor, 66% remained low CVS risk. Where 35% of the RA patients showed changes in the carotid and/or femoral USD compared with 14% of the control group (p=0.07)

Conclusion: The USD is able to early detect the CVD, special attention should be given to the femoral arteries, that are frequently affected. The Eular criteria is also effective and should be used in the clinical practice

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	AR	Control	Value-P
Age - Mean	58.54	55.14	0.064
Systemic Arterial Hypertension	31.42	20.00	0.274
Diabetes Mellitus (DM)	5.71	11.42	0.238
Dyslipidemia (DLP)	25.71	20.00	0.569
Total Cholesterol	196.11	183.54	0.134
Low Density Lipoprotein (LDL)	115.05	108.08	0.348
High-Density Lipoprotein Cholesterol (HDL)	57.94	52.57	0.109
Smoking	5.71	2.08	0.380

Table 1. Group characteristics

Figure 1. USD abnormalities

IMT - intima-media thickness; AP atherosclerotic plaques

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FRI0061

THE ADVERSE OBSTETRIC OUTCOMES WHEN RHEUMATOID ARTHRITIS IS CONTROLLED DURING PREGNANCY: IS THE DISEASE ITSELF A PROBLEM? DATA FROM A CASE-CONTROL COHORT OF 190 PREGNANCIES AT A MULTI-NATIONALITY SPECIALIZED CENTER IN QATAR

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Background: Rheumatoid arthritis is implicated in causing adverse pregnancy outcomes including high rates of prematurity and low birth weight. But little is known about the impact of the disease when it's controlled as most of the information is extracted from retrospective data.

Objectives: To examine the adverse obstetric outcomes after controlling disease during pregnancy. We also took into account many confounders that might affect the outcome.

Methods: This is an ongoing Case-Control Prospective Cohort. It is implemented in a tertiary center where cases are recruited from a single specialized pregnancy and rheumatic disease clinic to ensure standardized management. These cases were fulfilling the ACR 2010 classification criteria for rheumatoid arthritis. Disease activity was measured using CDAI once before pregnancy and once in each trimester. We excluded subjects with chronic morbidities or twin pregnancy. Data were collected in pre-specified data sheets. Routine blood tests in addition to C-reactive protein were obtained. Cases were recruited at different disease activity stages, but treatment was escalated to reach remission as possible by the third trimester. Data were analyzed using SPSS software for descriptive and comparative analyses.

Results: Since 2017 we have recruited 215 subjects. A total of 190 completed pregnancies were analyzed in this report (114 controls and 76 cases). Five subjects were excluded as their disease was not controlled by 27 weeks of gestation. Baseline characteristics of age, baseline BMI and anemia were similar. Exposure to passive smoking was significantly higher in the control group. There was no statistical difference in the incidence of gestational diabetes,

pre-eclampsia and infections. Rates of abortions and cesarean sections were significantly higher in the cases group. The incidence of PROM & low birth weight was not statistically different. Three cases of IUFD were reported among controls versus none in the cases (Table 1). Prematurity rate was numerically higher in the control group but did not reach a statistical difference. Congenital anomalies and NICU admission rates were comparable between the groups. But the incidence of neonatal morbidities was significantly higher in the control group (p. value 0.006), but the majority of morbidities were due to jaundice that resolved with phototherapy. We have evaluated the incidence of group B streptococcal Agalactae as a possible contributor to morbidities but it was similar between the groups. All cases were on DMARDs during pregnancy. Hydroxychloroquine was the most commonly used (55%) followed by sulfasalazine (40%). Steroid was used for variable duration in pregnancy in 23 cases. In most of them, it was tapered and stopped by the end of pregnancy. Biologics were used in 15 cases with few adverse outcomes including: abortion (1 case), PROM (1), maternal UTI (1), repeated URT infection (1) and neonatal bronchiolitis (1).

Table 1. Birth Outcomes

Birth Outcome	Cases (n)	Controls (n)	Pvalue
Abortion	9	1	0.001
IUFD	0	3	0.18
PROM	1	8	0.09
Cesarean	20	17	0.02
LBW	6	8	0.68
Premature	8	25	0.74

Conclusion: From this ongoing cohort we conclude that controlled RA during pregnancy carries low risk of adverse obstetric outcomes in spite the regular use of DMARDs. Although these results are reassuring, further regression models are required after recruiting more subjects.

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FRI0062

THE USE OF A COMORBIDITY INDEX FOR PREDICTING CLINICAL RESPONSE IN RHEUMATOID ARTHRITIS PATIENTS RECEIVING THEIR FIRST BIOLOGICAL AGENT

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Background: Several studies in Rheumatoid arthritis (RA) have suggested that a greater number of comorbidities is associated with worse functional status and disease activity measures. However, it is useful to use a composite comorbidity index, such as Rheumatic Disease Comorbidity Index (RDCI) that is validated for the use in patients with rheumatic diseases, to better understand the overall role of comorbidities in treatment outcomes.

Objectives: To evaluate the impact of comorbidities on 12-month clinical response in a cohort of patients with RA treated with a first-line biologic disease-modifying antirheumatic drug (bDMARD), by using the RDCI.

Methods: Observational retrospective study was performed including consecutive patients with the diagnosis of RA followed at our Rheumatology Department. The prevalence of comorbidities was computed, and patients were stratified according to RDCI for evaluating its role in clinical response disease activity at baseline and follow up (6 and 12 months). Correlations between variables were studied using Spearman correlation analysis, comparison between groups was performed using Kruskal-Wallis and Chi-square. A multivariate logistic regression model was developed to examine the role of RDCI along with other baseline factors as potential predictor of achieving remission, low disease activity (LDA), and EULAR good/moderate response. Statistical analyses were performed using SPSS statistical software, version 23.0.

Results: A total of 251 patients were included: 83.7% (n=210) females, mean age of 58 (± 11.10) years old, with a median disease duration of 16.11 years [10.79 - 23.04]. The majority exhibited a very high or high disease activity at