Methods: A prospective study was conducted on RA patients with newly diagnosed. Patients were evaluated twice, at the time of diagnosis and three months after the initiation of treatment. Demographic data, anthropometric measurements, disease activity scores and sarcopenia status were recorded. Sarcopenia was evaluated with grip strength and bioelectric impedance. The results were also compared with healthy volunteers.

Results: Hand grip strength ($p<0.001$), skeletal muscle mass ($p=0.009$) and skeletal muscle mass index ($p=0.032$) were found to be reduced in RA patients compared to the control group. The frequency of sarcopenia in RA at onset of diagnosis was found to be 31.5%. There was a significant decrease in the rate of sarcopenia after three months of treatment (31.5% versus 8.7%; $p=0.046$).

Conclusion: Sarcopenia was found in approximately one third of the patients with newly diagnosed RA in our study. With treatment, sarcopenia improved significantly. RA patients should be evaluated in terms of sarcopenia besides evaluating joint and extra-articular findings at the time of diagnosis. Early detection and treatment planning may improve the quality of life.

Figure 1. Distribution of skeletal muscle mass index (SMMI) and prevalence of sarcopenia in RA and control groups

Table 1. Demographics, clinical features, anthropometric measurements and disease activity scores of sarcopenic and non-sarcopenic RA patients

	RA without sarcopenia n=37	RA with sarcopenia n=17	p
Age, mean (SD), years	47.3 (12.8)	58.0 (16)	0.011*
Gender, female, n (%)	27 (73)	9 (52.9)	0.215
Marital status, married, n (%)	34 (91.9)	13 (76.5)	0.258
Tobacco consumption, n (%)			
Active smoker	10 (27)	5 (29.4)	0.086
Ex-smoker	8 (21.6)	8 (47.1)	
Never smoker	19 (51.4)	4 (23.5)	
Alcohol consumption, n (%)			
Active drinker	2 (5.4)	2 (11.8)	0.244
Ex-drinker	0 (0.0)	1 (5.9)	
Never drinker	35 (94.6)	14 (82.4)	
Occupation, n (%)			
Worker	15 (40.5)	12 (70.6)	0.060
Height, mean (SD), meter	1.6 (0.1)	1.6 (0.1)	0.664
Weight, mean (SD), kg	80.6 (17.7)	65.3 (8.6)	<0.001*
BMI, mean (SD), kg/m ²	31.4 (7.3)	24.9 (3.2)	<0.001*
Obese, n (%)	20 (54.1)	2 (11.8)	0.006*
Waist circumference, mean (SD), cm	97.1 (14.2)	89.3 (12.8)	0.058
Hip circumference, mean (SD), cm	108.1 (12.7)	96.6 (5.1)	0.001*
Calf circumference, mean (SD), cm	35.4 (5.1)	29.6 (4.0)	<0.001*
Triceps skin thickness, median (min-max), mm	22 (8-36)	15 (6-31)	0.022*
Loss of muscle strength, n (%)			
Right	10 (27.0)	9 (52.9)	0.076
Left	12 (32.4)	10 (58.8)	0.081
Dominant hand, right, n (%)	33 (89.2)	13 (76.5)	0.418
SMMI, mean (SD)	25.1 (5.8)	21.9 (4.7)	0.049*
SMMI, mean (SD)	9.6 (1.5)	8.2 (1.2)	<0.001*
DAS 28 - CRP, median (min-max)	4.4 (1.7-6.5)	4.4 (2.4-6.3)	0.860
SDAI, median (min-max)	36.1 (8.8-113)	31.1 (17.1-113)	0.668
CDAI, median (min-max)	23 (0-48)	23 (6-39)	0.993
PRGA, median (min-max)	6 (0-9)	5 (2-10)	0.627
PTGA, median (min-max)	8 (0-10)	7 (4-10)	0.666
Presence of morning stiffness, n (%)	32 (86.5)	14 (82.4)	0.999
Swollen joint count, median (min-max)	2 (0-10)	4 (0-9)	0.423
Tender joint count, median (min-max)	6 (0-20)	7 (0-18)	0.911

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2021-eular.1874

AB0158

COMPARISON OF CLINICAL EXAMINATION AND ULTRASOUND OF HAND AND WRIST JOINTS IN RHEUMATOID ARTHRITIS

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Background: Ultrasound (US) is an accessible and non-invasive tool to assess joint involvement in rheumatoid arthritis (RA). It is used for diagnostic and prognosis purposes and for following of RA patients by evaluating the disease activity and therefore the response to treatment.

Objectives: This study investigates agreement between US of hand and wrist findings and the clinical examination and biological inflammatory parameters in RA patients.

Methods: We performed a cross sectional study including patients responding to the ACR/EULAR 2010 criteria for RA diagnosis. We collected US findings assessing synovitis and doppler signal in wrist, metacarpophalangeal (MCP) and proximal interphalangeal (PIP) articulations, and concomitant clinical examination assessing synovitis and pain in the same joints along with C reactive protein (CRP) levels and disease activity score (DAS28). The power Doppler US score (PDUS) from 6 simplified synovial sites (wrists, bilateral second and third MCP joints) was calculated [1].

Results: Forty-three patients were included with 91.7% of women. The mean age was 62±12.95 years old. The mean age at diagnosis was 52±14.79 years with a mean disease evolution of 8±8.57 years. Rheumatoid factor and anti-citrullinated antibodies were positive in respectively 78% and 83.9% of cases.

The mean disease activity (DAS28) was 1.52 with levels ranging from 1.5 to 7.33. Right wrist was the articulation in which US synovitis was most frequently detected (60.5% of patients), followed by the left wrist (53.5%). Power doppler signal was detected as frequently in the right as in the left wrist articulations (41.9%). Subsequently, clinical synovitis was most frequently detected in right and left wrist with 39.5% and 41.5% respectively. These joints were the most frequently painful, in 51.2% and 48.8% at right and left respectively.

US synovitis of the first interphalangeal joint was found in only 2.3% and 4.7% in the right and left hand respectively, with positive power doppler signal in 2.3% of the patients in the same articulations.

The overall agreement between US and clinical examination in detecting synovitis of wrist, MCP and PIP joints was of 67.3%. It was of 71.4% in wrists, 54.7% in MCP joints and 87% in PIP joints. This suggests the presence of infra-clinical synovitis. All sites combined, US synovitis were correlated to clinical synovitis ($p=0.03$).

A positive correlation was found between PDUS from 6 simplified joint sites and CRP levels (p value of 0.02). No correlation was found with disease activity score (DAS28).

Conclusion: US of hands and wrist articulations is more performant than clinical examination in detecting synovitis. The most frequently involved joints with clinical and US synovitis, pain and positive power doppler signal were the wrist joints. CRP level is predictive of the presence of a high simplified power doppler score which is related to clinical activity of the disease as reported by Kawashiri et al. [1].

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Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2021-eular.1922

AB0159

DIASTOLIC DYSFUNCTION IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: Rheumatoid arthritis (RA) presents with an elevated incidence of congestive heart failure disease, which has a strong association with diastolic dysfunction, defined by left ventricular delayed relaxation pattern assessed by echocardiography.(1,2)

Objectives: To describe the frequency of left ventricular delayed relaxation pattern in patients with RA, and the relationship with its clinical and serological characteristics, as well as with traditional and non-traditional cardiovascular risk factors.

Methods: Descriptive, cross sectional, prospective study, in a Paraguayan cohort of patients with RA. This study had two phases: the first one, included a standardized questionnaire according to the variables included in the Cardiovascular Risk project (PINV15-0346), from the Consejo Nacional de Ciencias y Tecnología (CONACYT), and physical examination; the second one included laboratory sample collection performed by a specialized laboratory for serum biomarkers measurement for cardiovascular risk prediction (i.e. endothelin, alpha-TNF, E-selectin, t-PA, VCAM, PAI-1 and high sensitivity-CRP levels) and echocardiographic assessment with a Doppler 7 GE USA equipment at a private facility. All patients signed informed consent. SPSS Statistics v23 was used for data analysis. Quantitative variables were presented as means and qualitative variables as frequencies. Chi square test was performed for comparisons between dichotomous variables. A p value ≤ 0.05 was used for statistical significance.

Results: 100 patients were included, 87% women, with a mean age of 51.36 ± 11.03 years, mean disease duration of 130.9 ± 102.64 months. 84.4% had positive ACPA. 43.3% had bone erosions, with an average of DAS 28-ESR 3.42 ± 1.1 . 60% of patients presented with echocardiographic left ventricular delayed relaxation pattern. Regarding traditional CV risk factors, the same ones presented more frequently HBP (40% vs 19.4%, $p = 0.037$), DM2 (11.7% vs 0%, $p = 0.036$), obesity (38.3% vs 16.7%, $p = 0.025$), altered glycemia (27.1% vs 6.5%, $p = 0.02$), altered HbA1C (50.8% vs 22.6%, $p = 0.01$), higher mean weight (75.9 ± 17.62 $p = 0.02$), higher Framingham index high (20% vs 3.2%, $p = 0.03$). Regarding to clinical parameters, a higher frequency of erosions was found (55.8% vs 22.2%, $p = 0.004$), without other significant differences for disease activity, seropositivity or disease duration. As for serum biomarkers, higher levels of fibrinogen (639.71 ± 189.84 , $p = 0.04$), homocysteine (11.74 ± 7.81 , $p = 0.05$) and VCAM ($519, 16 \pm 203.68$, $p = 0.02$) were found.

Conclusion: We found a high frequency of diastolic dysfunction in patients with RA. They presented a significant association with traditional CV risk factors, erosions, and fibrinogen, homocysteine, and VCAM biomarkers. Adequate control of cardiovascular risk factors and echocardiographic assessment of these patients is essential in order to avoid the progression of heart functional damage.

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Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2021-eular.1935

AB0160

HIGH NUMBER OF CONCOMITANT MEDICATIONS AND COMORBIDITIES AT BASELINE IN THE GLUCOCORTICOID LOW-DOSE OUTCOME IN RHEUMATOID ARTHRITIS (GLORIA) STUDY: AN OLDER POPULATION WITH RHEUMATOID ARTHRITIS

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Background: Treatment with low-dose glucocorticoids (GCs) (≤ 7.5 mg prednisolone) in combination with standard care is highly effective in rheumatoid arthritis (RA), but despite 70 years of clinical experience, evidence-based information on its balance of benefit and harm is incomplete. This leads to an ongoing debate, with under- and over-use of GCs as result. The GLORIA pragmatic trial was developed to assess harm, benefit and costs of low-dose GCs added to the standard treatment of older RA patients.

Objectives: The objective of this abstract is to document the baseline status and frequency of comorbid conditions in the GLORIA study population. The results of the unblinded data will be submitted as late-breaking abstract.

Methods: This double-blind, randomized, placebo-controlled, multicenter trial (1) was open for patients with RA according to the 1987 or 2010 (2) criteria, age ≥ 65 years, and disease activity score of 28 joints (DAS28) of ≥ 2.6 . Patients were recruited from rheumatology clinics in Germany, Hungary, Italy, The Netherlands, Portugal, Romania and Slovakia. Eligible patients were randomized to two years of treatment with daily 5 mg prednisolone or matching placebo. All other medication was allowed, except for GCs. The presented data are blinded because the database is not closed yet.

Results: The population consists of 451 patients with mean disease duration 10.6 (Q1-Q3: 3-15) years. The majority (70%) is female, mean age is 72.5 (Q1-Q3: 68-76, range: 65-88) years, 66% were positive for rheumatoid factor and 56% for ACPA. Patients had a mean of 4.3 (SD 2.8) comorbidities besides RA (3.4 active) and therefore used multiple concomitant medications (3.9 (SD 3.4)) (Table 1). The most common comorbidities (provisional data of 161 patients with complete coding) in this older population are: vascular disorders (58%), musculoskeletal and connective tissue disorders (57%) and a history of surgical and medical procedures (45%). Patients were most frequently on beta blocking agents (22%, mainly metoprolol) and HMG CoA reductase inhibitors (20%, mainly simvastatin). Most patients also have an extensive history of anti-rheumatic treatment. At the start of the trial most patients (82%) were on cDMARD treatment; 15% were on bDMARDs/tsDMARDs. Almost half of the patients previously had been treated with GCs, with a mean duration of 3.4 years and a mean last dose of 4.6 mg/day.

Conclusion: The baseline data shows that we have an older study population who have relatively many other comorbidities next to RA and who are almost all treated with multiple concomitant medications in addition to the study medication. Therefore, we expect to report a high adverse event rate. Research among older patients is urgently needed, but the frailty of this population as represented by the multiple comorbidities and concomitant medications have to be taken into account in the analyses and interpretation of the results.

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Table 1. Comorbidities and concomitant medications at baseline in the GLORIA trial.

	Mean	SD	Range
Comorbidities	4.3	2.8	0-15
Active	3.4		
Past	1.9		
Concomitant medications (count)	3.9	3.4	0-15
Beta blocking agents (%)	22		
HMG CoA reductase inhibitors (%)	20		
Platelet aggregation inhibitors (%)	16		
ACE inhibitors (%)	12		
Angiotensin II antagonists (%)	11		
DAS28	4.52	1.05	
DAS28CRP	4.06	0.97	
HAQ (0-3)	1.2	0.7	
RA treatment	Current (%)		Previous (%)
cDMARD	84		92
bDMARD/tsDMARD	15		22
NSAID	51		29
Glucocorticoids	0		49

Acknowledgements: The GLORIA project is funded by the European Union's Horizon 2020 research and innovation programme under the topic "Personalizing Health and Care", grant agreement No 634886.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2021-eular.2013

AB0161

THE IMPACT OF BIOLOGICAL AGENTS ON CARDIOVASCULAR RISK FACTORS OF PATIENTS DIAGNOSED WITH RHEUMATOID ARTHRITIS

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