Background: The problem of sarcopenia (SP) in rheumatoid arthritis (RA) is particularly significant in terms of assessing the risk of fractures, since SP leads to falls, which are an independent risk factor for fractures along with RA and osteoporosis.

Objectives: To evaluate the bone mineral density (BMD) and fracture risk in women with RA and SP.

Methods: 79 women with RA based on the 2010 ACR/EULAR classification criteria were included: 20 (25%) women with confirmed SP (age median 59 [53; 64]) according to EWGSOP2 criteria and 59 (75%) women without SP (age median 60 [55; 67]) ($p > 0.05$). We assessed clinical data: age, body mass index (BMI), disease duration, anthropometric measurements, C-reactive protein level, disease activity score in 28 joints-erythrocyte sedimentation rate (DAS28-ESR), previous medication use including glucocorticoids and methotrexate, muscle strength and function. Dual-energy X-ray absorptiometry (DXA) to measure BMD of lumbar spine (LS), femoral neck (FN) and total hip (TH) was performed. The 10-year probability of major osteoporotic fracture (clinical spine, forearm, hip or shoulder fracture) and the 10-year probability hip fracture was calculated using the Russian version of the FRAX® tool. Statistical analysis was performed using non-parametric methods. All patients signed an informed consent to participate.

Results: Median BMD in LS was 0.892 [0.772; 1.024] g/cm² in patients with SP and 0.910 [0.785; 1.028] g/cm² - without SP ($p > 0.05$). There was significant difference between groups in the proximal femur BMD: 0.760 [0.731; 0.826] g/cm² in TH and 0.681 [0.607; 0.703] g/cm² in FN in patients with SP and 0.838 [0.735; 0.921] g/cm² in TH and 0.719 [0.622; 0.804] g/cm² in FN in patients without SP ($p = 0.009$ and $p = 0.048$, respectively). The frequency of osteoporosis was 35% and 22% in patients with and without SP ($p > 0.05$). The 10-year probability of major osteoporotic fracture with / without femoral neck BMD data was 22.0% [17.0; 32.0] / 19.5% [18.5; 22.5 and 13.3% [9.8; 18.5] / 12.8% [9.3; 17.0] in patients with SP and without SP ($p < 0.05$) and the 10-year probability of hip fracture with / without femoral neck BMD data - 3.1% [3.0; 7.5] / 3.1% [2.3; 3.3] and 1.4% [0.9; 2.78] / 0.65 [0.4; 1.7], respectively ($p < 0.05$).

Conclusion: There were no differences in the frequency of osteoporosis between patients with SP and without SP, however women with SP had proximal femur BMD less than women without SP. The probability of major osteoporotic fracture and hip fracture was significantly higher in patients with RA and SP compared with patients without SP.

Disclosure of Interests: None declared

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SAT0095

REAL LIFE SEVERE INFECTIONS IN PATIENTS WITH RHEUMATOID ARTHRITIS ON TREATMENT WITH BIOLOGICAL THERAPY AND JAKI

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Background: Infections are one of the main complications among patients with rheumatoid arthritis (RA) with immunosuppressive treatment. The differences between treatments and the influence of other factors is unclear.

Objectives: To evaluate the frequency and factors associated with serious infections in patients with RA treated with biological therapy (BT) and JAKi and the differences between treatments.

Methods: Descriptive and retrospective study (January 2015-December 2019) of patients with RA treated with BT (TNFi, non-TNFi) and JAKi (tofacitinib, baricitinib) in a single center. Severe infection was considered a life-threatening infection or one that required hospitalization and intravenous treatment. Epidemiological variables, clinical characteristics, Charlson comorbidity index, type of BT or JAKi and concomitant treatment were collected.

For the analysis frequencies and percentages are used in qualitative variables, and mean $\pm$ SD in the quantitative ones. Statistical analysis was performed with IBM SPSS v 23.

Results: We registered 246 patients (85% women) mean aged 55.8 $\pm$ 13.5 years. RF was positive in 87%, anti-CCP in 75.6% and 15.4 % presented extra-articular manifestations (nodulosis 8.9%, interstitial lung disease 5.3%, other 1.2%). At the start of the study 149 patients (60.6%) were with TNFi, 79 (32.1%) non-TNFi and 18 (7.3%) with JAKi and non-biologic DMARD (nbDMARDs) were used in 84.1% of cases (methotrexate 71.2%, leflunomide 21.4%, other 7.4%). During the study 176 patients (71.5%) continued with the same treatment and in 70 (28.5%) it was changed at least once. 5 patients discontinued the treatment. At the end of the study, 124 patients (50.4%) were with TNFi, 83 (33.7%) non-TNFi and 34 (13.8%) with JAKi.

Severe infection was developed in 17 (6.9%) patients (respiratory 7, se sis 4, urinary 3, cellulitis 2, osteomyelitis 1) among them 2 patients had severe infection and herpes zoster and 3 developed a second infection. 9 patients were with TNFi (52.9%), 6 non- TNFi BT (35.3%) and 2 JAKi (11.8%). Table 1

TABLE 1. CHARACTERISTICS OF PATIENTS WITH INFECTION VS. WITHOUT INFECTION

	INFECTION		p
	YES n:17	NO n:229	
FEMALE , n (%)	13 (76.5)	196 (85.6)	0.297
AGE years , (mean $\pm$ SD)	60.8 $\pm$ 13	55.4 $\pm$ 13.5	0.112
AGE $\geq$ 65 n (%)	9 (52.9)	63 (27.5)	0.070
RF + , n (%)	17 (100)	197 (86)	0.139
ANTI-CCP + , n (%)	14 (82.4)	172 (75.1)	0.770
ILD , n (%)	1 (25)	12 (35.3)	0.708
ALCOHOL , n (%)	1 (5.9)	19 (8.3)	1.00
SMOKER , n (%)	5 (29.4)	60 (26.2)	0.772
COPD , n (%)	5 (29.4)	24 (10.5)	0.036*
DM , n (%)	7 (41.2)	19 (8.3)	0.001*
SEVERE LIVER DISEASE , n (%)	2 (11.8)	1 (0.4)	0.013*
RENAL INSUFFICIENCY , n (%)	2 (11.8)	3 (1.3)	0.040*
PERIPHERAL VASCULAR DISEASE , n (%)	7 (41.2)	25 (10.9)	0.003*
CHARLSON INDEX (mean $\pm$ SD)	2.35 $\pm$ 2.1	0.66 $\pm$ 1.2	0.014*
TNFi , n (%)	9 (52.9)	115 (50.2)	
NON-TNFi n (%)	6 (35.3)	77 (33.6)	
JAKi , n (%)	2 (11.8)	32 (14)	
nbDMARDs , n (%)	12 (70.6)	156 (68.1)	0.833
GCC , n (%)	13 (76.5)	115 (50.2)	0.037*

The inflammatory activity of RA was mild at the time of infection (DAS28: 2.7 $\pm$ 1.2). The median time until infection was: TNFi 28.05 months, non- TNFi BT 25.03 and Jakinibs 16.97.

The Charlson index, concomitant treatment with glucocorticoids (GCC) (not treatment with nbDMARDs), chronic obstructive pulmonary disease (COPD), diabetes (DM), severe liver disease and moderate-severe renal insufficiency were statistically significantly associated with infection. Table 1

Conclusion: In our study, 6.9% of patients with RA treated with BT or JAKi developed severe infection during 4 years of follow-up. Concomitant GCC therapy and comorbidity increased the risk of presenting this complication.

Disclosure of Interests: None declared

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SAT0096

DISCORDANCE BETWEEN SUBJECTIVE AND OBJECTIVE INDEX OF THE DISEASE ACTIVITY SCORE MAY REDUCE THE CORRELATION BETWEEN CLINICAL AND ULTRASOUND ASSESSMENT IN RHEUMATOID ARTHRITIS

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Background: There was discordance between subjective and objective index of the disease activity score, or between clinical parameters and ultrasound findings in some RA patients. Therefore, we set out to determine whether the discordance between subjective and objective index of the composite score could reduce the correlation between clinical and ultrasound parameters in RA.

Objectives: To investigate whether the discordance between tender and swollen joint count (TJC and SJC) as well as patient's and evaluator's global assessment (PGA and EGA) influences the correlation between clinical and US parameters in RA.

Methods: RA patients with available ultrasonography of 28 joints from Jan 2014 to Jan 2018 were enrolled in the study. Gray-scale (GS) synovial hypertrophy and Power Doppler (PD) synovitis were measured and semi-quantitatively graded. The total GS/PD score was the sum score of 28 joints. SJC and TJC based on 28 joints, PGA and EGA of all the patients were evaluated by one rheumatologist. The numeric difference between TJC and SJC (Δ TJSJ) and that between PGA and EGA (Δ PEG) were calculated. The correlation between clinical and ultrasound parameters in different Δ TJSJ and Δ PEG subgroups was explored.

Results: Totally 163 patients were enrolled in the study. Clinical composite disease activity scores and all the components were significantly correlated with the total GS and PD scores ($p < 0.01$ for all). But the relevance between the clinical disease parameters and total PD score became weak, with the increase of Δ TJSJ. For the patients with Δ TJSJ > 5 , the total PD score was only correlated with CRP, EGA and PGA, while the total GS score was only correlated with CRP. Similarly, no correlation between total PD score and clinical parameters, except for SJC, was observed in patients with Δ PEG < 0 ($p < 0.05$).

Conclusion: Total PD/GS score was correlated well with the clinical parameters of disease activity, including both the subjective and objective indexes. But for patients with Δ TJSJ > 5 , there was no correlation between total GS/PD scores and clinical composite disease activity scores, except that only the objective index (CRP, SJC and EGA) were more likely to correlate with total GS/PD scores.