(Table 1). Among patients with depression, there was a greater severity of PGE pain, and more expressed functional disorders. In the group of patients with anxiety, there was a higher disease activity (according to DAS28-ESR), the severity of pain according to PGE and functional disorders; there were no significant differences between the groups in terms of ESR and CRP indicators (Table 1).

Table No1. Influence depression and anxiety symptoms of inflammatory activity

Parametres	Depression positive, n=18	Depression negative, n=75
DAS28-ESR	4,4 [3,8; 5]	3,9 [3,1; 4,5]
ESR, mm/hr	16 [13; 25]	16 [9; 27]
CRP, mg/l	1,5[0,6; 2,9]	2,4 [1; 5,9]
HAQ	1[0,75; 1,37]*	0,5[0; 1]*
PGA	52,5 [35; 70]*	30 [15; 50]*
	Anxiety positive, n=29	Anxiety negative, n=64
DAS28-ESR	4,4 [3,8; 4,9]*	3,18[2,9; 4,4]*
ESR, mm/hr	20[11; 33]	15[9; 25]
CRP, mg/l	1,9 [1; 3,3]	2,5[1; 5]
HAQ	1[0,5; 1,37]*	0,5[0; 0,8]*
PGA	50 [35; 70]*	25[10; 40]*

Conclusion: The presence of depression and anxiety negatively influences the activity of RA, leading to an increase in pain and worsening of the functional disorders. To prescribe an adequate anti-rheumatic therapy, it is necessary to take into account not only the activity of RA, but also the psychological status of the patient

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2022-eular.4707

AB0231

PROGNOSTIC UTILITY OF METACARPAL BONE MINERAL DENSITY MEASUREMENT IN PATIENTS WITH RECENT-ONSET ARTHRITIS BY ASSESSMENT OF RADIOGRAPHIC PROGRESSION AT 2-YEAR FOLLOW-UP

I. Llorente[1], A. Ortiz[1], A. M. Fernandez Ortiz[2], A. García-Vadillo[3], J. Ivorra[4], L. Rodriguez Rodriguez[5], R. Garcia-Vicuna[1], S. Castañeda[1], I. González-Álvaro[1]. *[1]Hospital Universitario de La Princesa, Rheumatology Unit, Madrid, Spain; [2]Hospital Universitario de Badajoz, Rheumatology Unit, Badajoz, Spain; [3]Hospital Universitario de La Princesa, Rheumatology, Madrid, Spain; [4]Hospital Universitario y Politécnico de La Fe de Valencia, Rheumatology Unit, Valencia, Spain; [5]Hospital Clinico San Carlos, Rheumatology Unit, Madrid, Spain*

Background: Rheumatoid arthritis (RA) and osteoporosis (OP) have a complex interplay in terms of pathogenic mechanisms. In this regard, radiogrammetry (DXR) of the hand, a technique that measures the bone mineral density (BMD) at the central metacarpals (MC), is associated with a worse prognosis in patients with RA (1). However, DXR is an expensive technique, and not very accessible in our environment. Our group demonstrated an excellent reproducibility of the MC measurement by DXA (2) and good correlation between BMD measurements obtained by DXR and DXA (3).

Objectives: To evaluate if baseline BMD of the non dominant MC measured by DXA can be used as a prognostic marker, resembling DXR, in patients with early arthritis (EA).

Methods: A total of 378 subjects from the PEARL (Princesa Early Arthritis Register Longitudinal) study underwent DXA measurement of the 2nd to 4th MC's diaphyseal area of the non dominant hand (Hologic 4500). In PEARL sociodemographic, clinical and laboratory parameters, therapeutic data and radiographic findings are collected by protocol. Radiographic progression was evaluated in hands by a blind expert rheumatologist assessing the erosion scale of modified SvdH index in both the baseline and two year follow-up visit. To study the predictive value of MC baseline BMD by DXA, two multivariate models were fitted using generalized linear models with Stata 14.0 for Windows (Stata Corp LP, College Station, TX, USA). The dependent variables were remission (SDAI<3.3) and radiographic progression after two 2 years of follow-up. Both models were adjusted by the classic variables that affect BMD such as age, sex and body mass index (BMI), cumulative DMARD treatment and baseline disease activity for the remission model.

Results: After adjustment by age, sex and BMI: a) those patients at remission tended to show higher baseline MC's BMD by DXA (p=0.328); and b) those patients with higher radiographic progression had significantly lower baseline MC's BMD as shown in Figure 1(p=0.001).

Conclusion: In our registry of patients with EA, we have detected that a lower basal BMD in the diaphysis of the central MC bones, assessed by DXA, is associated with greater radiographic progression at 2 years of follow-up after adjusting for the main factors influencing BMD. Therefore, we could conclude that a low initial bone mass could constitute a poor prognostic factor in patients with EA.

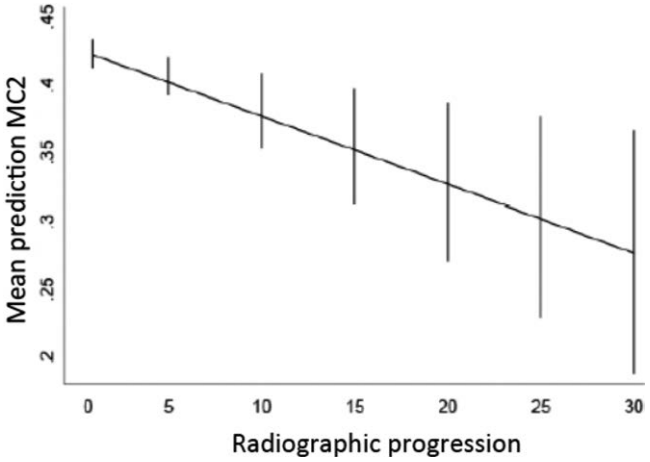

Figure 1. Correlation of mean BMD of 2-4th MC bones with radiographyc progression assesed by the modified SvdH radiological index at 2 years, after adjusting for age, sex and BMI, calculated using Stata margins command base don the data obtained from multivariate analysis.

REFERENCES:

[1] Haugeberg G, Lodder MC, Lems WF, Uhlig T, Ørstavik RE, Dijkmans B a. C, et al. Ann Rheum Dis october 2004;63(10):1331-4.
[2] Llorente I, Merino L, Escolano E, Quintanilla DM, García-Vadillo JA, González- Álvaro I, et al. C Clin J Densitom 2020;23(4):678-84
[3] Ann Rheum Dis, volumen 78, supplement 2, year 2019, page A942

Disclosure of Interests: Irene Llorente Speakers bureau: UCB, Jannsen, Lilly, Gedeon Richter, Ana Ortiz: None declared, ANA MARIA FERNANDEZ ORTIZ: None declared, Alberto García-Vadillo: None declared, José Ivorra: None declared, Luis Rodriguez Rodriguez: None declared, Rosario Garcia-Vicuna: None declared, Santos Castañeda: None declared, Isidoro González-Álvaro: None declared

DOI: 10.1136/annrheumdis-2022-eular.4797

AB0232

THE USEFULNESS OF THE PROGNOSTIC NUTRITIONAL INDEX (PNI) FOR THE DISEASE ACTIVITY IN PATIENTS WITH RHEUMATOID ARTHRITIS

N. Öz[1], H. H. Gezer[2], M. T. Duruöz[3]. *[1]Marmara University School of Medicine, Physical Therapy and Rehabilitation, Rheumatology, Istanbul, Turkey; [2]Umraniye Training and Research Hospital, Physical Therapy and Rehabilitation, Rheumatology, Istanbul, Turkey; [3]Marmara University School of Medicine, Physical Therapy and Rehabilitation, Rheumatology, Istanbul, Turkey*

Background: Many prognostic factors and laboratory biomarkers have been put forward to correlate disease activity in Rheumatoid arthritis (RA). The prognostic nutritional index (PNI) was first established to assess perioperative immunonutritional status and surgical risk in patients undergoing gastrointestinal surgery. The PNI, which reflects albumin concentration and lymphocyte count, is a newly established inflammation-based nutritional score.

Objectives: In this study, we aimed to determine the relationship between this simple risk index, which was first adapted and analyzed in malnourished patients, and disease activity in RA patients.

Methods: This prospective study included 77 RA patients who fulfilled the 2010 revised criteria of the American College of Rheumatology for RA. The demographic characteristics of the patients, duration of the disease and clinic characteristics of the patients such as the 28-joint Disease Activity Score based on the erythrocyte sedimentation rate (DAS28-ESR), Visual Analogue Scale, Health Assessment Questionnaire-Disability Index were collected. Labotaruvary findings including erythrocyte sedimentation rate, C-reactive protein levels, lymphocyte count, albumin were noted. The PNI was calculated using the following formula: 10 x serum albumin value (g/dL) + 0.005 x total lymphocyte count in the peripheral blood (per mm^3). Based on the DAS28-ESR level, the included patients were categorized into two groups, namely, inactive to mild active RA (n=31; DAS28-ESR level <3.2) and moderate to highly active RA (n=46; DAS28-ESR level ≥3.2). These groups were compared with the parameters described above.

Results: Seventy-seven patients (90.9% female) with a mean age of 53.6 (SD:10.2) years were recruited into the study. The age, gender and disease therapy duration of the patients were similar in both groups. Patients who DAS28-ESR ≥3.2 had a significantly lower PNI compared to those who did not [41,57 (SD:3,64) *vs*. 43,78 (SD:2,30), *p*=0.017] (Table 1). Multivariate logistic regression analyses revealed that PNI was an independent predictor of moderate to highly active RA (OR: 0.770, 95%CI: 0.635–0.935; *p*=0.008). A receiver operating characteristic curves analysis yielded that the optimal cut-off value of PNI for moderate to highly active RA was 42.01 with sensitivity 67.7% and specificity 47.9% (AUC: 0.662, 95%CI: 0.541-0.782, p=0.017) (Figure 1).

Table 1. Demographic, clinical features and laboratory findings of the patients with rheumatoid arthritis based on disease activity measured by DAS28-ESR

	DAS28-ESR <3.2 n=(31)	DAS28-ESR ≥3.2 n=(46)	P value
Age (years; mean SD)	55,80 SD 9,39	52,13 SD 10,67	0.124
Female, gender, n (%)	26(%83,9)	44(%95,7)	0.111
Prognostic Nutritional Index (mean SD)	43,78 SD 2,30	41,57 SD 3,64	***0,017***
Disease symptoms duration (month; mean SD)	112,2 SD 97,3	120,9 SD 79,7	0.316
Disease therapy duration (month; mean SD)	93,2 SD 94,2	110,0 SD 76,0	0.126
DAS28-ESR (mean SD)	2,55 SD 0,47	4,47 SD 0,85	<0.001
Visual Analogue Scale (mm, mean SD)	7,38 SD 16,58	20,17 SD 25,76	<0,001
Health Assessment Questionnaire-Disability Index (mean SD)	0,69 SD 0,62	0.84 SD 0,60	0,259
ESR (mm/h, mean SD)	26,35 SD 18,98	31,73 SD 16,95	0.083
CRP (mg/L, mean SD)	6,30 SD 4,49	12,75 SD 19,54	0.106
Albumin (g/dl, mean SD)	4,37 SD 0,23	4,15 SD 0,36	0.010
Lymphocyte (cells/µL, mean SD)	2,01 SD 0,62	2,07 SD 0,65	0.570

Abbreviations: DAS28-ESR, the 28-joint Disease Activity Score based on the erythrocyte sedimentation rate; ESR, erythrocyte sedimentation rate; CRP, C-reactive protein.

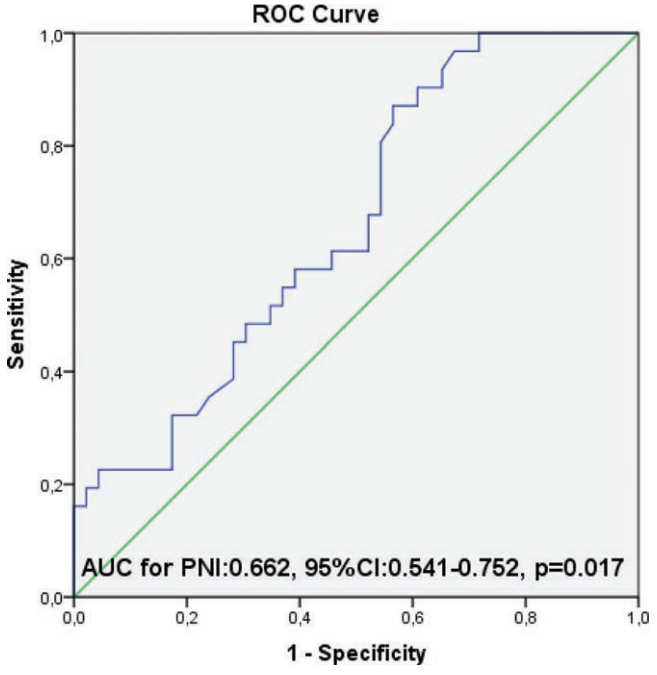

Figure 1.

Conclusion: Based on the study findings, we were able to show that simple and easily obtained PNI could be an independent predictor of disease activity in rheumatoid arthritis patients.

REFERENCES:

[1] Nuh Ataş, Hakan Babaoğlu, Ertuğrul Demirel, et al. Use of prognostic nutritional index in the evaluation of disease activity in patients with Behçet's disease Eur J Rheumatol. 2020 Jul; 7(3): 99–104.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2022-eular.4860

AB0233

CARDIOVASCULAR EVENTS IN PATIENTS WITH RHEUMATOID ARTHRITIS: A TWO YEARS OBSERVATIONAL STUDY.

P. Martinez Calabuig[1], R. González Mazarío[2], J. J. Fragío Gil[3], E. Grau García[3], C. Pávez Perales[3], S. Leal Rodriguez[3], C. Riesco Barcena[3], A. V. Huaylla Quispe[3], L. Mas Sanchez[3], P. Muñoz Martinez[3], J. E. Oller Rodríguez[3], E. Vicens Bernabeu[3], R. Negueroles Albuixech[3], J. Ivorra Cortés[3], F. Ortiz-Sanjuán[3], M. De la Rubia Navarro[3], L. Gonzalez Puig[3], I. Martínez Cordellat[3], C. Nájera Herranz[3], I. Cánovas Olmos[3], J. A. Román Ivorra[3]. *[1]Hospital General Universitario, Servicio de Reumatología, Valencia, Spain; [2]Hospital Arnau de Vilanova, Sección de Reumatología, Valencia, Spain; [3]Hospital Universitari i Politècnic La Fe, Servicio de Reumatología, Valencia, Spain*

Background: The risk of cardiovascular disease (CVD) in patients with rheumatoid arthritis (RA) is higher than individuals from the general population due to chronic inflammation. Current CV risk screening and management strategies underestimate the actual CV risk in RA. Thus, an adequate CV risk stratification has special relevance in RA to identify patients at risk of CV disease.

Objectives: To assess the incidence of cardiovascular events in a RA cohort after a 2 years follow-up.

Methods: A cohort study was performed in which inclusion criteria were adult RA patients and matched adults in terms of age, sex and CV risk factors (controls). Population over 75 years old, patients with established CV disease and/or stage III chronic kidney disease were excluded. Controls with other inflammatory diseases, pregnant women or any malignancy were also excluded. This study was performed from July-2019 to January-2022. CV risk assessment included risk factors collection and US evaluation consisted in detection of plaques and measurement of the intima-media thickness in both right and left carotid.

Results: Overall, a total of 200 cases and 111 healthy controls were enrolled in the study. Demographical and clinical variables were comparable between cases and controls and are shown in Table 1. US study revealed a higher IMT in both right and left carotid arteries with greater presence of plaques in patients than in controls (CI 95% [1.542; 3.436], p<0.001). Plaques were found in both carotid arteries in the 32% of cases and 9.91% of controls. The longer duration of RA was related to a higher presence of carotid plaques (95% [1.015; 1.056], p<0.001).

Table 1. Demographic, clinical characteristics and Ultrasound results of patients and controls.

Characteristic	RA cases n=200	Healthy controls n=111
Age - years	62.05 (10.75)	58.3 (12.14)
Female sex – number (%)	163 (81.5)	73 (65.77)
BMI – value (ds)	26.38 (5.03)	26.2 (5.19)
Smoking habit		
Never Smoked	107 (53.5%)	71 (63.96%)
Ex-smoker	51 (25.5%)	20 (18.02%)
Active smoker	42 (21%)	20 (18.2%)
Race – number (%)		
Caucasian	186 (93)	62 (93.94)
Comorbidities – number (%)		
High blood pressure	83 (41.5%)	34 (30.63%)
Dyslipemia	93 (46.5%)	39 (35.14%)
Blood pressure -- mmHg	127.2(18.36)/78.67(10.21)	127.77(19.42)/78.28 (10.59)
Ultrasound findings		
Right carotid cIMT	0.78 (0.15)	0.62 (0.11)
Left carotid cIMT	0.77 (0.14)	0.64 (0.12)
Plaques	101 (50.5%)	32 (28.83%)
Bilateral	64 (32%)	11 (9.91%)
Right carotid	17 (8.5%)	7 (6.31%)
Left carotid	20 (10%)	14 (12.61%)

Eight patients (4%) presented a cardiovascular event, and one of them died (0.5%). The events consisted in 2 angina pectoris, 3 transient ischemic attack, 1 acute myocardial infarction, 1 lacunar stroke and 1 cardiac arrest. Six out those 8 patients demonstrated bilateral plaque presence at baseline. Two patient caused loss of follow up due to death related to Covid-19. Not a single cardiovascular event was reported in the control group.

Conclusion: Our results shows that cardiovascular events are increased in RA patients and US study may be useful in predicting an event.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2022-eular.5306