Conclusions: USCs can be isolated from adult sterile urine. They possess the multipotent differentiation abilities and displays a therapeutic effect on bleomycin-induced skin fibrosis and collagen synthesis.

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Rheumatoid arthritis – prognosis, predictors and outcome

AB0199

ENDOCAN LEVELS AND SUBCLINICAL ATHEROSCLEROSIS IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: Rheumatoid arthritis (RA) is an inflammatory autoimmune disease with unknown etiology. Accelerated atherosclerosis (AS) and AS with heart disease are among the major causes of morbidity and/or mortality in RA. Endothelial-specific molecule 1 (endocan) is a potential indicator of vascular events and is expressed in response to inflammatory mediators in endothelial cells. Carotid intima media thickness (cIMT) is used to detect early signs of AS but also progression in cardiovascular diseases related to AS.

Objectives: The aim of the present study is to evaluate the relationship of serum endocan levels with RA and cIMT as a candidate marker of diseases to be used in clinical practice.

Methods: The study was conducted between June 2012 and March 2013 at the Rheumatology Clinics of Necmettin Erbakan Meram Medical School, Turkey. Thirty nine³⁹ RA patients, diagnosed according to the 1987 criteria of the American College of Rheumatology, and 30 age- and sex-matched healthy subjects as the control group were included in this study.

Abstract AB0199 – Table 1. The clinical and laboratory parameters in two groups.

	RA patients (n=39) (mean±SD)	Controls (n=30) (mean±SD)	P value
Age (years)	47.7±8.8	43.0±10.8	0.057
Gender (M/F), n (%)	33 (84.6)/6 (15.4)	21 (70)/9 (30)	0.238
BMI (kg/m ²)	28.0±4.3	27.1±5.1	0.443
ESR (mm/h)	28.56±16.16	18.70±12.27	0.005
CRP (mg/dL)	0.55±0.54	0.42±0.55	0.336
TC (mg/dL)	198.28±48.15	165.43 ±30.59	0.001
TG (mg/dL)	153.58±93.02	132.73 ±55.74	0.252
LDL-c (mg/dL)	123.02±44.88	118.81 ±24.76	0.622
HDL-c (mg/dL)	50.43±10.18	42.12±8.18	<0.001
cIMT (mm)	0.63±0.17	0.51±0.12	0.001
Endocan	14.11±3.27	12.10±2.92	0.009

RA, Rheumatoid arthritis; BMI, body mass index; cIMT, carotid intima media thickness; TC, total cholesterol; TG, triglyceride; LDL-c, low density-lipoprotein cholesterol; HDL-c, high density-lipoprotein cholesterol; ESR, erythrocyte sedimentation rate; CRP, C-reactive protein;

Abstract AB0199 – Figure 1

Results: No significant difference was detected between groups with respect to age, sex and body mass index. In the patient group the Endocan and cIMT values were found to be 14.11±3.27 ng/mL and 0.63±0.17 mm, while in the control group they were 12.10±2.92 ng/mL and 0.51±0.12 mm, the Endocan and cIMT values were significantly higher in the patient group (p=0.009 and p=0.001, respectively). Positive correlations was found between Endocan, cIMT and Disease Activity Score of 28 joints (p=0.008 and p=0.029, respectively). When assessing the endocan levels of RA patients in the study population, cut off value of 12.21 with sensitivity of 71%, specificity of 57% and p=0.012 (area under curve: 0.678, 95% confidence interval (CI) 0.555–0.805) were observed according to ROC curve analysis.

Conclusions: Endocan might be a useful marker to evaluate atherosclerotic lesions in patients with RA and also to assess disease severity.

Disclosure of Interest: None declared

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AB0200

FACTORS ASSOCIATED WITH FUNCTIONAL CAPACITY IN A BRAZILIAN COHORT OF PATIENTS WITH RHEUMATOID ARTHRITIS: RESULTS FROM THE "REAL" STUDY

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Background: Rheumatoid arthritis (RA) is associated with impairments in functionality, affecting aspects such as physical capacity, independence, mental health, social and professional life. Health Assessment Questionnaire-Disability Index (HAQ-DI) is a validated tool for assessing functional capacity in RA patients. A simple questionnaire with a score of 0 to 3 is applied, with an inverse relationship between grade and functionality. Previous studies have shown worse functional indexes in patients with high disease activity and established joint damage.

Objectives: To relate clinical, laboratory and therapeutic aspects with HAQ-DI in a large cohort of Brazilian patients.

Methods: A prospective, multicenter cohort study ("REAL" Study) involving 11 Brazilian centres specialised in the treatment of RA patients. All patients were submitted to at least 3 clinical evaluations in a 12 month period. Only patients older than 18 years and classified as RA according to 1987 (ACR) or 2010 (ACR/EULAR) criteria were evaluated. HAQ-DI was applied for assessing functional capacity, and the results were analysed for association with clinical, laboratory and therapeutic elements. Comparison between groups was performed using Mann-Whitney or Kruskal-Wallis tests.

Results: Overall, 1116 patients (89.43% females, mean age 58±11 years) took part in the study. Rheumatoid factor (RF) in high levels and bone erosion were both associated with higher HAQ-DI indexes (p: 0.0244 and p<0.0001, respectively). Of all patients, 89.7% were using conventional synthetic disease-modifying antirheumatic drugs (DMARDs) and 36.5% were on biologic DMARDs or

targeted-synthetic DMARDs. The use of any conventional synthetic DMARD was associated with lower HAQ-DI indices ($p: 0.0243$), while the use of any biologic DMARD or targeted-synthetic DMARD was related to greater functional impairment ($p: 0.0018$). By evaluating separately, abatacept ($p: 0.0046$), rituximab ($p: 0.0001$) and tocilizumab ($p: 0.0441$) were associated with higher levels of HAQ-DI. The results are summarised in table 1.

Abstract AB0200 – Table 1. Health assessment questionnaire-disability index score position and dispersion measurements and result of comparison between groups

Variable	Category	N	Mean	SD	Median	p-value
Rheumatoid factor	High	612	0.98	0.80	0.88	0.0244 ^c
	Low	247	0.89	0.73	0.75	
	Negative	235	0.82	0.74	0.75	
ACPs	High	262	0.96	0.77	0.88	0.3927 ^c
	Low	86	0.89	0.84	0.63	
	Negative	111	0.88	0.75	0.68	
Bone erosion	No	493	0.77	0.72	0.63	<0.0001 ^a
	Yes	599	1.06	0.80	1.00	
Methotrexate	No	373	0.96	0.80	0.88	0.4028 ^b
	Yes	739	0.91	0.76	0.75	
Lefunomide	No	735	0.93	0.77	0.88	0.8936 ^b
	Yes	377	0.93	0.78	0.88	
Hydroxychloroquine	No	993	0.94	0.78	0.88	0.2696 ^b
	Yes	119	0.85	0.75	0.75	
Sulfasalazine	No	1,058	0.93	0.78	0.88	0.6727 ^b
	Yes	54	0.87	0.75	0.81	
Conventional synthetic DMARDs	No	115	1.12	0.89	1.00	0.0243 ^b
	Yes	997	0.91	0.76	0.75	
Adalimumab	No	1,059	0.92	0.77	0.88	0.7728 ^b
	Yes	53	1.00	0.86	0.75	
Infliximab	No	1,064	0.93	0.77	0.88	0.8659 ^b
	Yes	48	0.94	0.78	0.81	
Etanercept	No	1,046	0.94	0.77	0.88	0.1317 ^b
	Yes	66	0.79	0.75	0.69	
Certolizumab pegol	No	1,095	0.93	0.78	0.88	0.3074 ^b
	Yes	17	0.72	0.67	0.50	
Golimumab	No	1,075	0.93	0.78	0.88	0.8372 ^b
	Yes	37	0.85	0.70	1.00	
Tocilizumab	No	1,058	0.92	0.78	0.75	0.0441 ^b
	Yes	54	1.08	0.66	1.00	
Abatacept	No	1,040	0.91	0.77	0.75	0.0046 ^b
	Yes	72	1.16	0.78	1.00	
Rituximab	No	1,063	0.91	0.77	0.75	0.0001 ^b
	Yes	49	1.34	0.77	1.00	
Tofacitinib	No	1,103	0.93	0.77	0.88	0.9211 ^b
	Yes	9	0.93	0.76	0.75	

Conclusions: In our prospective cohort, patients with high levels of RF, bone erosion, in use of any biologic DMARD or targeted-synthetic DMARD, abatacept, rituximab or tocilizumab had worse functional capacity indexes. When compared to non-use, the use of any conventional DMARD was associated with better rates of HAQ-DI.

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AB0201

ASSOCIATION BETWEEN BASELINE CALPROTECTIN SERUM LEVELS AND RESPONSE TO BIOLOGICAL THERAPY IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: Calprotectin (CLP) is an important proinflammatory factor of innate immunity released from activated granulocytes and macrophages during inflammation, which has also been identified in synovial fluid. It is a potential pro-inflammatory biomarker reflecting joint damage. CLP levels in synovial fluid are well correlated with levels in plasma, which allows measuring it easily in patients with rheumatoid arthritis (RA). However, the additional value of CLP over other biomarkers is unclear

Objectives: To study the association of baseline CLP serum levels with the clinical response and serum drug levels in patients under biological therapy at 6 and 12 months after starting treatment.

Methods: Prospective observational study including 109 patients with RA who started biological treatment (Infliximab(Ix);Adalimumab(Ada);Etanercept(Etn); Certolizumab(Ctz);Golimumab(Glm); Tocilizumab(Tcz) and Rituximab(Rtx) in a tertiary hospital since 1999 to 2016. Serum CLP levels were measured by ELISA

with the commercial kit CALPROLAB (Lysaker, Norway). Levels of biological drug and ADA were measured by capture and bridging ELISA respectively, except Certolizumab which was measured by Sanquin Diagnostic Service. Clinical response was assessed by DAS28. Serological and clinical parameters were evaluated at baseline, 6 and 12 months. For analysis, linear regression models adjusted for confounders (age, sex, BMI, DMARDs, smoking status) and with standardised beta as estimate were employed.

Results: Out of 109 studied patients, 22% patients received Ix, 6% Ada, 16% Etn, 18% Ctz, 5% Glm, 25% Tcz and 9% Rtx. Most patients were woman (84%), with a median (IQR) age of 62 (52.3–73.1) and disease duration of 9.5 (4.8–15.3). At baseline, CLP levels directly correlated well with CRP and DAS28($r=0.411$; $p<0.001$ and $r=0.308$; $p<0.001$). On the other hand, an inverse correlation between baseline CLP levels and the presence of drug at 6 ($\beta=-0.325$; $p=0.01$) and 12 months ($\beta=-0.397$; $p<0.001$) was also found. Moreover, in the adjusted analyses a trend for this correlation at 6 months ($\beta=-0.199$; $p=0.07$) and a significant correlation at 12 months ($\beta=-0.381$; $p<0.001$) was observed. Additionally, in the non-adjusted models, baseline CLP levels significantly directly correlated with the clinical response at 6 months ($\beta=0.194$; $p=0.04$) while the correlation at 12 months was not significant ($\beta=0.186$; $p=0.06$). However, after adjusting for confounders, no significant correlation was found at any study point ($\beta=0.213$; $p=0.06$ at 6 months and $\beta=0.206$; $p=0.07$ at 12 months).

Conclusions: In patients with RA initiating biological therapy, baseline CLP concentrations are inversely correlated with the circulating drug levels along the treatment. However, the additional value of CLP as a predictor of clinical response remains unclear.

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AB0202

GLUCOCORTICOIDS IN THE INITIAL TREAT-TO-TARGET STRATEGY OF EARLY RHEUMATOID ARTHRITIS

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Background: As stated in the 2013 update of RA recommendations, glucocorticoids (GCs) should be used as bridging therapy for up to 6 months, ideally tapering them at earlier time points.¹

Objectives: To evaluate whether initial combination therapy with GCs and disease modifying anti-rheumatic drugs (DMARDs) influences clinical and radiological outcome in the real-life practice of a cohort of early rheumatoid arthritis (ERA) patients.

Methods: A total of 367 ERA patients with less than 12 months of disease duration were enrolled in the study. ERA patients fulfilled the 2010 ACR criteria for RA and were followed according to the treat-to-target strategy. The mean follow-up (FU) was 38.2±32.8 months. At baseline, and every three months, the ACR/EULAR core data set variables were recorded. At baseline and every year, hand and foot radiographs were examined according to modified Total Sharp score (mTSS). At each visit, clinical improvement and remission were evaluated according to EULAR criteria. The achievement of CDC (28-joint Disease Activity Score using C reactive protein <2.6, Health Assessment Questionnaire <0.5 and change from baseline in mTSS ≤0.5) was assessed every year of follow-up.

Results: At baseline 291 (71.9%) ERA patients started GCs at a dosage of 0.2 mg/Kg, gradually tapered and withdrawn as rapidly as clinically feasible. As expected, these patients presented higher values of acute phase reactants ($p=0.001$), and higher levels of disease activity scores ($p<0.001$) and disability index ($p=0.001$), compared to the 76 subjects (18.8%) who had not been prescribed GCs. Patients not treated with GCs were in higher percentages anti-citrullinated peptide antibody (ACPA) (75.0%) and IgM-rheumatoid factor (RF) (64.5%) positive, compared to subjects taking GCs (62.9%, $p=0.05$; 49.8%, $p=0.02$, respectively). There were no differences regarding age, disease duration, BMI, smoking habit and presence of erosions at onset. The mean duration of GC treatment was 7.5±7.9 months and the mean dosage during FU was <5 mg prednisone per day. During the FU, in the two groups a similar percentage of patients started a combination therapy with biological (b)-DMARDs and no differences were observed regarding radiographic progression.

A higher rate of remission defined according to DAS values, 2011 ACR/EULAR criteria, and CDC criteria, was registered in patients not treated with GCs compared to subjects who required corticosteroid therapy. ERA patients that didn't manage to stop GCs at the sixth month (38.8%) had a higher BMI ($p=0.04$) and a lesser chance of achieving remission defined according to DAS values, 2011 ACR/EULAR criteria, and CDC criteria during follow-up. Moreover, a higher percentage of them required a combination therapy with bDMARDs during FU ($p<0.0001$).

Conclusions: In our cohort ERA patients initially treated with GCs had higher disease activity scores at onset compared to subjects without GCs. The lesser chance of achieving remission and the higher rate of bDMARD therapy in ERA