Table 3. Independent predictors of US detected inflammatory findings

	p	Odds ratio	95% C.I.	
			Lower	Upper
ESR (mm/h)	0.039	1.04	1.002	1.078
Time (months) from symptoms onset	0.1	0.924	0.841	1.015

	Total n= 57	US inflammatory findings n= 20	Non-US inflammatory findings n=37	p
Age	55.8 ± 15.2	53.9±14.5	59.5±16.2	0.2
Sex	41 (71.9%)	13 (65%)	28 (75.7%)	0.3
Smoking	27 (47.4%)	10 (55.6%)	17 (50%)	
n= 52	20 (35.1%)	6 (33.6%)	14 (41.2%)	0.8
Former	5 (8.8%)	2 (11.1%)	3 (8.8%)	
Current	7 (12.3%)	3 (15%)	4 (10.8%)	
Monocentric	8 (14%)	5 (25%)	3 (8.1%)	0.9
Extension	42 (73.7%)	12 (60%)	30 (81.1%)	
Polysynovial	11.4 ± 10.4	7.3±6.2	13.5±11.5	0.049
Time (months) from symptoms onset	19.1 ± 21	29.3±28.4	14.5±14.8	0.044
ESR (mm/h)	0.6 ± 1.4	1.1±1.9	0.4±0.9	0.15
CRP (mg/dL) n=47	64.3 ± 321.6	21±53.7	88.5±399.7	0.5
RF (IU/mL) n=53	52.2 ± 231.4	104.8±360.5	22.3±103.6	0.2
CCP (IU/mL)				

Table 1. Baseline characteristics of patients with IA

Conclusion: PD US inflammatory findings are found in 1 over 3 patients with IA being PD synovitis the most common finding, specially at the wrists and MCP joints. Higher ESR values were significantly associated with the presence of US inflammatory findings. Our data highlights how the use of PD US may be useful to detect subclinical synovitis in patients with IA.

	US synovitis	PD positive
Hands	14 (24.6%)	11 (9.3%)
Wrist	14 (24.6%)	11 (9.3%)
MCP	7 (12.3%)	7 (12.3%)
PIP	1 (1.8%)	0 (0%)
Feet	8 (14%)	4 (7%)
Ankle	4 (7%)	3 (5.2%)
Tarsal joints	1 (1.8%)	1 (1.8%)
MTP	3 (5.3%)	0 (0%)
	US tenosynovitis	PD positive
Hands	4 (7%)	3 (5.3%)
2nd, 3rd, 4th or 5th flexor	3 (5.3%)	3 (5.3%)
4th extensor	1 (1.8%)	1 (1.8%)
6th extensor	0 (0%)	0 (0%)
Feet	1 (1.8%)	1 (1.8%)
Tibialis anterior	0 (0%)	0 (0%)
Posterior tibialis	1 (1.8%)	1 (1.8%)
Peroneus	0 (0%)	0 (0%)
	US enthesitis	PD positive
Feet	2 (3.5%)	2 (3.5%)
Achilles	2 (3.5%)	2 (3.5%)
Plantar Fascia	1 (1.8%)	0 (0%)

Table 2. US findings of patients with IA

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AB0206

CIRCULATING CENTROMERE PROTEIN F AUTOANTIBODIES FOR PREDICTING CLINICAL RESPONSE TO INFliximab IN RHEUMATOID ARTHRITIS

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Background: One third of patients with rheumatoid arthritis (RA) respond poorly to TNF inhibitors and related studies are inconsistent in predictive biomarkers. The identification of biomarkers that predict the treatment response prior to drug exposure is a current priority on the RA field. ACPA and RF are ubiquitously tested in RA patients, but other autoantibodies exist and may provide additional information on RA treatment response.

Objectives: This study aimed to identify circulating autoantibodies for predicting response to infliximab (IFX) in RA.

Methods: We profiled the autoantibody repertoire of baseline sera from 155 biologic naïve RA patients treated with IFX. The sera were provided by three independent clinical sources and distributed in one exploratory cohort (N=20) collected from Hospital Clínico Universitario de Santiago de Compostela (Spain), one replication cohort (N=61) collected from Hospital Universitario de A Coruña (Spain) and samples from the Swedish FarmacoTherapy (SWEFOT) trial (Sweden) (N=74) for clinical validation. The presence of autoantibodies and their levels in serum were analysed in association with EULAR clinical response at 6 months follow-up: good response (GR, N=56), moderate (MR, N=55) and non-response (NR, N=44). A suspension bead array platform built on protein fragments within Human Protein Atlas and selected from an initial untargeted screening using an array containing 42000 antigens was employed to identify the IgG and IgA autoantibodies on the exploratory cohort. A replication and validation phases were carried out on the other two serum sample cohorts. Meta-analysis and Receiver Operating Curves were performed in order to assess the clinical relevance of the findings observed.

Results: Meta-analysis revealed that the levels in serum of IgG autoantibodies against Centromere protein F (CENPF) are significantly increased in responders (good responders and moderate responders; N=111) to IFX compared to non-responders (N=44) (P=0.018). CENPF is a proliferation-associated and cell cycle-dependent centromere autoantigen that might be involved in the increased or abnormal cell proliferation that occurs during RA process. The combination of the anti-CENPF antibodies with clinical variables (age, sex, DAS28-ESR) resulted in the best model to discriminate the patients that will respond to IFX, showing an AUC of 0.756 (95% CI [0.639-0.874], P=0.001).

Conclusion: High serum levels of IgG anti-CENPF antibodies might be potentially useful to identify RA patients more likely to benefit from IFX

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AB0207

CLINICAL IMPACT OF ANTI-CARP ANTIBODIES IN RHEUMATOID ARTHRITIS

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Background: Antibodies directed against carbamylated proteins (anti-CarP) have been recently introduced for the first time as a new biomarker in rheumatoid arthritis (RA) (1). Their presence is predictive for the development of RA (2). Anti-CarP antibodies are associated with the development of more severe forms of the disease in overall and anti-citrullinated peptide antibodies negative

population of patients with RA (3). In the literature is still current the research which associate these antibodies with disease activity and functional status of patients.

Objectives: This study investigated the incidence of anti-CarP positive findings in patients with RA on synthetic and biologic disease-modifying therapy (DMT) and the relationship between anti-CarP antibody status and both disability and disease activity.

Methods: It was an open-label, observational, cross-sectional study. The trial included 70 patients with RA diagnosed on the basis of ACR 1987 and ACR / EULAR 2010 criteria, on treatment with synthetic and biological DMT, who attended the Clinic of Rheumatology, Military Medical Academy, from September to December 2018. The control group consisted of 18 healthy individuals. After approval of the institutional Ethical Committee and after patients have signed Informed Consent, the study was conducted. Disease activity score (DAS28) was determined for the assessment of RA activity, and the assessment of patients' functional ability was performed using the Health assessment questionnaire disability index (HAQ-DI). Concentration of anti-CarP antibodies was determined by commercial ELISA anti-CarP quantitative sandwich immunoassay. The methods of descriptive and analytical statistics were used in statistical data processing.

Results: Based on the cut-off value (5.9 ng / ml), no one in the control group had positive anti-CarP antibodies, while 34.7% of the subjects with RA were positive. The positive correlation was found between anti-CarP antibody concentration and DAS28 in all RA patients ($p = 0.0003$; Pearson $r = 0.4829$). The positive correlation was also found between anti-CarP antibody concentration and HAQ-DI in all RA patients ($p = 0.0003$; Pearson $r = 0.4253$).

Conclusion: Anti-CarP antibodies were present in a significant number of patients with RA. This study demonstrated that patients with RA with higher concentrations of anti-CarP antibodies have higher disease activity and impaired functional status. It is undisputed that further and larger studies are needed to better determine the clinical significance of these antibodies.

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Graphs 1 and 2. Correlation of anti-CarP antibody concentration with DAS28 and HAQ-DI in all RA patients

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AB0208 ASSOCIATION OF RHEUMATOID FACTOR, HLA-DRB1 SHARED EPITOPE (SE) AND SMOKING WITH RADIOGRAPHIC OUTCOME IN RHEUMATOID ARTHRITIS

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Background: Genetic and environmental factors interact in aetopathogenesis of Rheumatoid Arthritis (RA). However, it remains unclear whether current smoking, presence of Rheumatoid factor (RF) and HLA-DRB1 SE influence the radiographic outcome.

Objectives: To clarify the possible associations between radiographic outcome, HLA-DRB1 SE, RF and smoking status in patients with longstanding RA.

Methods: An observational study of 240 consecutive Greek patients with RA, whose mean age and mean disease duration was 65.31±12.5 and 12.7±11.8 years respectively. Among them 74.17% were female, 40% were smokers, 60.42% had positive RF and 68.33% possessed at least one SE allele. HLA-DRB1 alleles were typed by molecular techniques (PCR-SSOP and SSP). X-rays of hands and feet were performed and scored by the Sharp-van der Heijde score (SHS) method.

Results: Results were stratified by RF and smoking status and analyzed by multivariate logistic regression. Overall, the mean SHS was significantly higher in RF positive than RF negative patients and in smokers than non-smokers (52.76±31.1 vs 38.4±31.96, $p = 0.0007$, 55.33±38.56 vs 26.8±22.32, $p < 0.0001$, respectively). Furthermore, patients that possessed at least one SE allele had higher SHS than SE negative (35.49±24.76 vs 25.74±19.22, $p = 0.0013$). An association between radiographic severity and SE was found in RF positive patients. More specifically, seropositive patients carrying at least one SE allele had higher SHS than those lacking SE (40.85±33.21 vs 29.23±24.72, $p = 0.037$). On the other hand, smokers with at least one SE allele had higher SHS when compared to smokers without SE (29.27±25.20 vs 20±17.22, $p = 0.048$). Among RF negative and non-smokers RA patients, no significant association was found between the presence of HLA-DRB1 SE and radiographic severity.

Conclusion: Our data indicate that in longstanding RA there is an association between RF positivity, the presence of SE, current smoking status and radiographic outcome.

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