remission. There was no association between reasons for discontinuation of the first therapy because of primary or secondary failure and adverse effects (3,4±0,9 vs 3,75±1,11vs 3,86±1,3, p=0,6) with the number of treatments received.
Conclusions: In our biologic therapy RA-PAZ cohort, we found a subgroup of younger pts, with a more systemic phenotype of the disease and a higher disease activity,who required a prompter biological therapy initiation. This subgroup of pts is more susceptible to biological treatment failures. The development of ADA after the first biological agent was also associated with the need to use more biologics.
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AB0199 METHOTREXATE RESPONSE IN EARLY RHEUMATOID ARTHRITIS ASSESSED USING A SOMAMER PROTEOMIC ASSAY

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Background: Optimizing treatment in early rheumatoid arthritis (ERA) improves clinical outcomes. Developing approaches that would allow for accurate outcome predictions would be useful. We examined the possibility of employing SOMAscan to identify biomarkers that predict treatment response.
Objectives: To define methotrexate (MTX) 6 month treatment associated response protein changes using SOMAscan.
Methods: Sera from 14 Disease Modifying Antirheumatic Drug (DMARD) naive ERA patients at baseline (PRE) and after six months of MTX (POST) were analyzed using SOMAscan, an aptamer based assay that offers simultaneous relative quantitation of 1310 proteins. RA activity was measured by DAS28ESR3var abbrev DAS3; RF and ACPA were measured at baseline. SOMAmer intensity data was log2 transformed and differences (D=POST-PRE) clustered using undirected hierarchical self-organization. Kolmogorov-Smirnov differential analysis determined SOMAmers contributing to these populations at $p<0.05$. Potential processes associated with these SOMAmer regulation groups were identified using an in-house biological enrichment tool.
The potential for SOMAmers to predict treatment response was also explored; for this we defined a fractional clinical response metric dDAS3= (DAS3_POST-DAS3_PRE)/DAS3_PRE. We then selected a population of proteins (n=3 to avoid over-fitting) with PRE expression levels best correlating to dDAS3. These three PRE expression values formed a weighted average, with weighting coefficients optimized by a simple Monte-Carlo method. We included this weighted average with clinical variables in logistic regression models, where 6 month DAS3 was the dependent variable.
Results: Clustering gave two populations of 6 and 8 patients (POP0, POP1) with mean delta DAS3 values of -1.71 and -0.46 respectively. In POP0 compared to POP1, 113 proteins were upregulated and 121 proteins were downregulated. The upregulated proteins were involved in VEGF signalling and platelet activation. The downregulated proteins were involved in regulation of immune response, cellular response to TNF and cytokine –cytokine receptor interactions. The fractional change dDAS3 correlated well with the treatment response panel (R^2=0.8645; p=6.8e-5), with the caution that expression values of the 3 best-correlating proteins exhibited low coefficients of variation (<0.1). However, these proteins did reflect RA responses or inflammation. This weighted sum was also independently associated with treatment response in regression models including baseline DAS3 (or components) and RF/ACPA.
Conclusions: This pilot study suggests that high content proteomic approaches such as SOMAscan may be useful for developing prediction tools of patient responses to treatment. Extension of this work into a larger patient population is ongoing.
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AB0200 MUSCULOSKELETAL ULTRASOUND ADDED TO ROUTINE EVALUATIONS OF RHEUMATOID ARTHRITIS PATIENTS HAS A DIFFERENT IMPACT ON THE TREATMENT PROPOSAL DEPENDING ON PHYSICIAN EXPERIENCE

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Background: Disease activity (DA) is the most important factor in the treatment decision/monitoring during rheumatoid arthritis (RA) patient's follow-up. In routine clinical practice, it is recommended to regularly evaluate DA level from patients with RA. Musculoskeletal ultrasound has been suggested to add value to establish the level of DA; evaluations that assess a reduced number of joints, as the German ultrasound score of 7 joints (GUS-7) are easy to incorporate in clinical practice (1).
Objectives: To explore the real impact of GUS-7 in the treatment recommendation to RA outpatients, currently attending an Early Arthritis Clinic (EAC). The primary objective was to determine the proportion of patients in whom treatment recommendation differed after GUS-7 examination. We additionally tested the variations of GUS-7 impact according to the physician's experience (senior rheumatologist [SR] vs. trainee in rheumatology [TR]).
Methods: A sample size of 84 evaluations was calculated to achieve the primary objective. Eighty-seven consecutive and randomly selected RA outpatients were invited to participate; 2 patients denied because of administrative reasons and the 85 patients left underwent 170 assessments (85 each by the SR and the TR). At first, both physicians (blinded to each other evaluations) performed a clinical evaluation that included DAS28 scoring and recommended a RA-treatment. Then, patients underwent GUS-7 by a blinded (to clinical evaluations) rheumatologist that additionally determined the sonographic disease activity. In the final step, the TR and the SR integrated the US findings to their previous evaluation and reviewed their prescription; GUS-7 findings, pre- and post-GUS-7 treatments were recorded on standardized formats. Patients received final recommendation only from the SR. All the patients signed informed consent and were instructed about the process. Descriptive statistics was used.
Results: Patients were primarily middle-aged [(mean±SD) 45.13±12.4 years] female (91.4%), with (mean±SD) disease duration of 7.5±3.9 years. Most of the patients (69.2% according to TR and 71.8% to SR) were in DAS28-ESR-remission, although the four levels of DA were represented. Agreement between both physicians was good (Kappa: 0.82, $p\leq0.001$). Most frequent GUS-7 findings were grey scale synovitis in at least one joint in 98.8% of the patients, among whom 22.6% had Power Doppler activity (PD); one third of the patients had tenosynovitis although few (12%) had PD; erosions were detected in 38.8% of the patients.
In 34 of 170 clinical scenarios (20%), GUS-7 findings modified treatment; treatment changes (after GUS-7 findings were incorporated to clinical findings) consisted of an increase in 24 (70.6%) scenarios, a decrease in 8 (23.5%) and joint injection with corticosteroids in 2 (5.9%). Interestingly, 24 of the 34 clinical scenarios with GUS-7 treatment impact were performed by the TR vs. 10 performed by the SR: 70.5% vs. 29.5%, p=0.01. Treatment changes (increase, decrease and joint injection) were similar among both specialists.
Conclusions: In routine clinical practice of RA patients, GUS-7 assessments impacted treatment decision in 20% of the patients; the impact was stronger among TR than among SR.
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AB0201 INFLUENCE OF SIGA ON CLINICAL ACTIVITY MARKERS IN SPA PATIENTS WITH NON-RADIOGRAPHIC AND PERIPHERAL COMPROMISE

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Background: There are previous evidence about inflammatory signs related with the intestinal mucosa in spondyloarthritis patients with seronegative arthritis and them relation with articular inflammatory activity. It is uncertain the role of these serological markers on the inflammatory/clinical activity in patients with SpA
Objectives: To establish the relationship among activity variables and indices, and soluble markers associated to mucosal associated lymphoid tissue in a group of SpA patients.
Methods: Patients were selected by rheumatologists with the ESSG criteria. Levels of SIgA, IgA, IgA *Chlamydia trachomatis*, *Shigella spp*, *Yersinia ssp*, *Campilobacter ssp* and *Salmonella ssp*, CRP,ESR,HLA-B27,BASDAI,ASDAS-CRP and ASDAS-ESR were determined. A principal components analysis (PCA), Poisson Regression and multiple correspondence analysis were performed to find relationships between clinical and laboratory variables and SIgA. This study was approved for Ethics Committee.
Results: 46 patients were included (78.2% males with a mean age 34.8±12.3 years). It was reported at least one gastrointestinal sing in 69.2% of patients:abdominal bloating (45%), abdominal pain (43%); all patients showed at least one musculoskeletal symptom, 69.5% enthesitis, 63% inflammatory back pain and 58.6% arthritis, as well as 43.4% previous infection and 47.8% presented HLA-B27.The PCA showed three principal factors which cover a contribution of 82.2% to explain the SIgA variation.The ASDAS-CRP, ASDAS-ESR, BASDAI variables which provide the 47.12%;the regression model shows an inverse association among SIgA and BASDAI (prevalence ratio (PR):0.43, 95% CI:0.26–0.70 p=0.001), ASDAS-CRP (PR:0.72, 95% CI:0.24–0.95 p=0.021) and ASDAS-ESR (PR:0.69, 95% CI:0.39–0.95 p=0.007); however, a risk was demonstrated among BASDAI and Yersinia IgA (PR:1.68 95% CI:1.03–2.74 p=0.036) and between ASDAS-CRP with HLA-B27 (PR:1.62 95% CI:1.18–2.19 p=0.0002). There was a relationship between the absence of clinical activity (ASDAS-CRP, ASDAS-ESR and BASDAI), previous infection, Yersinia IgA with SIgA Q1 (27.8–43.0 ug/mL); the presence of arthritis, Salmonella IgA, and high levels of CRP and ESR were related with SIgA Q2; SIgA levels among (Q3)12.2–18.0 ug/mL were associated with inflammatory back pain, obesity and Salmonella IgA <1/1600. High scores

of BASDAI and ASDAS-CRP, absence of previous infection had a strong relation with low levels of SIgA.
Conclusions: SIgA serum level were the only one serologic maker, which had an inverse correlation with all clinical activity variables of disease, previous infection and some specific antibodies associated with intestinal mucosal infection, suggesting a protective role of this molecular shape of IgA that is characteristic of mucosal immune responses
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AB0202 LOW DOSE ACETYLSALICYLIC ACID AS PRIMARY PROPHYLAXIS OF CARDIOVASCULAR EVENTS IN RHEUMATOID ARTHRITIS. A LONGITUDINAL, RETROSPECTIVE STUDY

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Background: Cardiovascular events (CV) i.e. acute myocardial infarction and stroke are recognized as a leading cause of mortality in patients with Rheumatoid Arthritis (RA) [1,2]. Acetylsalicylic acid (ASA) is known to be associated with a significant decrease in the incidence of CV events in patients at high risk for atherosclerosis like patients with diabetes [3] and has been recently reported to play a primary prophylactic role of CV events in Systemic Lupus Erythematosus by our team [4].
Objectives: To investigate the so far unexplored role of ASA in reducing CV morbidity in RA.
Methods: We analysed patients admitted to our Outpatient clinic from January to December 2015. Out of 199, 155 patients, who had been followed from January 2000 and had not experienced any CV event at the first visit, were enrolled. The incidence of CV morbidity was recorded at December 2016.
Results: The 155 patients had been followed-up for a median of 8 years (range 1–15 years). Out of them, 111 patients had been treated with ASA, that we currently administer to patients undergoing steroid treatment. During the 15-years of follow up, 5 CV events (2 cerebrovascular, 3 acute myocardial infarction) had occurred (Incidence rate 3.93/1000 person/year). Interestingly, only 1 CV event had occurred in ASA treated patients (Incidence rate 1.12/1000 person/year) with respect to 4 in the non-ASA group (44 patients) (Incidence rate 10.48/1000 person/year) (p=0.0146).
Conclusions: Our study has several limitations including the low number of patients and CV events. Nevertheless, it might suggest a primary prophylactic role of ASA in RA, that awaits to be investigated in large controlled prospective studies.
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AB0203 EXPRESSION LEVELS OF SELECTED GENES CAN PREDICT THE INDIVIDUAL RHEUMATOID ARTHRITIS PATIENT RESPONSE TO TUMOR NECROSIS FACTOR ALPHA BLOCKER TREATMENT

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Background: Rheumatoid arthritis (RA) patients have many therapeutic options. However, there are limited tools to predict the individual patient's response to therapy. The Genefron personal diagnostic kit (IFR 300) has been developed based on analysis of large databases to select interferon stimulated gene (ISG) expressions which could predict response to a biologic agent
Objectives: This study aims to evaluate the ability of the Genefron diagnostic kit to predict the individual RA patient response to TNFα blockers.
Methods: Two separate analyses were performed, one retrospective and one prospective analysis. The response of 61 RA patients reported in 2 published data sets was analyzed retrospectively utilizing the Genefron kit. In addition, 18 patients with RA were assessed prospectively, before and 3 months after starting treatment with a TNFα blocker. Clinical assessment included swollen and tender joint counts, patient and physician assessments of disease activity. Patients' blood samples were obtained before administration of the TNFα blocker and were analyzed utilizing the Genefron diagnostic kit which measures expression levels of selected genes by quantitative real time PCR.
Results: Genefron kit analysis of retrospective data correctly predicted the response to a TNFα blocker in 53 of 61 RA patients (accuracy - 86.8%). In the prospective analysis 6 patients achieved a moderate EULAR response, 6 achieved a good EULAR response and 6 did not respond. According to the EULAR moderate response, the Genefron diagnostic kit predicted the response correctly in 16 of 18 patients (accuracy-89%, sensitivity -100%, specificity - 67%). According to the EULAR good response, the kit predicted the response correctly in 15 of 18 patients (accuracy - 83.3%, sensitivity - 100%, specificity - 75%).
Conclusions: The Genefron diagnostic kit predicted the response to TNFα blockers in a high percentage of RA patients assessed either retrospectively or prospectively in a real life setting. This personal diagnostic kit has the ability to guide selection of a suitable biological drug for the individual RA patient
Disclosure of Interest: None declared
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AB0204 DISEASE FACTORS ASSOCIATED TO ABNORMAL INTIMA-MEDIA THICKNESS IN MEXICAN MESTIZO RHEUMATOID ARTHRITIS PATIENTS

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Background: Atherosclerotic cardiovascular disease (ASCVD) is the main mortality cause in patients with rheumatoid arthritis (RA) (1). It has been proven that the carotid intima-media thickness (CIMT) measured with carotid duplex ultrasonography (US) is an important ASCVD predictor with a measurement ≥0.9 mm (2–4).
Objectives: To characterize the disease factors related with abnormal carotid duplex US findings in Mexican mestizo patients with RA.
Methods: In a cross-sectional setting, we enrolled consecutive RA patients. Patients with overlap syndromes, personal history of ASCVD, dyslipidemia and previous use of any statin were excluded. A board-certified radiologist performed a bilateral carotid duplex US to all patients. Abnormal CIMT was defined as ≥0.9 mm (hypertrophy ≥0.9 – 1.2 mm and carotid plaque ≥1.2 mm). A clinical history and blood tests were performed at the time of the patient's visit. Disease activity was measured with Disease Activity Score using 28 joints–C-reactive protein (DAS28-CRP).
Results: We enrolled 57 patients. Demographic characteristics are shown in table 1. A total of 30 (52.2%) patients had an abnormal CIMT. US findings are shown in table 2. A significant correlation between abnormal CIMT and RA disease duration (p=0.04), as well as between the former and anti-cyclic citrullinated peptide antibodies (ACPA) positivity (p=0.033) was found.

Table 1. Demographic and disease characteristics

Variable	Results
Female gender, n (%)	54 (94.7)
Age (years), mean ± SD	56±9.9
Disease duration (years), mean ± SD	12.4±8.3
BMI (kg/m^2), mean ± SD	28.22±4.9
Smoking status, n (%)	5 (8.77)
DAS 28- CRP, mean ± SD	3.33±1.19
Disease Activity, n (%)	
Remission	17 (29.8)
Low	11 (19.3)
Moderate	25 (43.8)
Severe	4 (7.1)
Positive Anti-CCP, n (%)	44 (77.19)
Positive RF, n (%)	51 (89.47)

BMI: Body Mass Index.

Table 2.- *Carotid Doppler ultrasound findings.*

Ultrasound findings, n (%)		Disease duration	Disease Activity	Positive Anti-CCP	Positive RF
				P	
Abnormal CIMT	32 (56.14)	***0.022***	0.57	***0.034***	0.14
Plaque	11 (19.29)	0.33	0.75	0.65	0.67
Hypertrophy	21 (36.84)	0.52	0.59	0.54	0.38

Conclusions: There is a strong relationship between CIMT and the chronic inflammatory process of RA, as well as ACPA positivity. These results might be influenced by the high mean disease duration of our patients. Prospective studies that evaluate CIMT among disease duration intervals are necessary to support these findings.