showed a significant increase in VEGF level (343.35 (190.62; 561.28) pg/ml) in the group of high positive ACCP (>60 U/ml) compared with the group of low positive ACCP (≤60 U/ml) - 470.23 (324.3, 676.85) pg/ml (p=0,005). Using ANOVA variance analysis, it was found that the level of anti-CCP in the blood of studied RA patients influences the VEGF level in blood (KW =7,88; p=0,005)
Conclusions: In patients with RA duration <2 years VEGF levels in the blood was 30% higher than in patients with a prolonged course of RA. Concentration of VEGF in the blood increased 2-fold with a high degree of RA activity. Levels of VEGF in the blood were 1.5 times higher in the patients with anti-CCP levels>60 U/ml compared to low positive anti-CCP patients. The high level of VEGF may be a marker of severe clinical course of RA, the high rate of disease progression and the development of early joint destruction
Disclosure of Interest: None declared
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AB0197 SUBCLINICAL INTERSTICIAL LUNG DISEASE IN EARLY RHEUMATOID ARTHRITIS

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Background: Interstitial lung disease (ILD) is a severe extra-articular complication of Rheumatoid Arthritis (RA). The decrease in DLCO diffusion is the most sensitive value for the detection of ILD, DLCO is also a prognostic factor.
Objectives: To study the prevalence of subclinical lung involvement in early RA.
Methods: Cross-sectional study of lung involvement in early RA. The following criteria were used: A) RA according to the EULAR-2010 criteria. B) Early RA if evolution from the onset of symptoms to the diagnosis of RA was less than one year. C) Lung affectation if DLCO diffusion was lower than 80%. In each patient we evaluate: a) presence of dyspnea according to MMRC (Modified British Medical Research Council) scale; B) Respiratory function tests (FVC, FEV1, FEV1/FVC; C) DLCO; classifying the degree in: i) normal>80% (mild decrease 80–60%); ii) Moderate decrease (60–40%) and iii) Severe reduction (<40%); D) Chest x-ray: assessed by radiologist. E) Joint activity of RA (DAS28), F) CRP and ESR. G) RF, CCPA, H) Presence of atheroma plaque on carotid ultrasound. Quantitative variables were expressed as mean±SD or median [IQR] and were compared with the Student t or Mann Whitney U test, respectively. Dichotomous variables were expressed as percentages and compared using the chi-square test. Statistical analysis was performed with the SPSS 15.0 program.
Results: 20 patients (15 women/5 men) with early RA were studied; mean age of 54.1±13.4 years. Some patients were using disease-modifying antirheumatic drugs (DMARDs) prior to performing respiratory function tests (PFR): methotrexate (7) 3 of them with less than 14 days of treatment, hydroxychloroquine (4), sulfasalazine (1). The table shows the main characteristics of patients according to pressence of lung disease. We observed a decrease in DLCO in 15/20 patients (75%) who were mild (DLCO <80%) in 4 (27%); Moderate (DLCO <60%) in 9 (60%) and severe (DLCO <40%) in 2 (13%). Chest x-ray showed these alterations in 3 patients: signs of air trapping, laminar atelectasis and scarring tracts. There were no alterations in FVC in any patient.

Table 1

	With lung involvement (n=15)	Without lung involvement (n=5)	P
Age. mean	56.3±13.11	55.6±15.69	0.55
Sex (W/M)	13/2	3/2	**0.03**
Smokers or ex smokers, n (%)	10 (66.7)	1 (20)	0.06
CCP Antibody, positive n (%)	8 (53.3)	2 (40)	0.60
Titer, median [IQR]	430.5 [165.8–1874.2]	47 [35–59]	0.23
RF Positive, n (%)	8 (53.3)	2 (66)	0.6
RF titer. median [IQR]	213 [67.5–334.75]	135 [74–196]	0.6
ESR mean/ CRP mean	32.1±21.4/ 4.7±7.8	24.6±21.8/ 0.80±0.83	0.84/0.21
DAS28, mean	5.04±1.03	4.48±0.85	0.49
Bone erosions X ray, n (%)	1 (6.7)	1 (20)	0.60
Carotid plaque, n (%)	8 (53.3)	2 (40)	0.60
Extra articular manifestation, n (%)	3 (20)	0	0.16
– Sjögren Syndrome	2		
Abnormalities in thorax Rx. n (%)	3 (20)	0	0.16
Dyspnea, n (%)	1 (6.7)	0	0.60
DMARDs, n (%)	8	4	0.60
Methotrexate,n (%)	5 (55)	2 (50)	
Hydroxichloroquine, n (%)	2 (33)	2 (50)	
Sulfasalazine, n (%)	1 (12)	0	

Conclusions: We find a high frequent of lung involvement in early RA, in most of cases subclinical. Performing Respiratory function tests may help in early detection of lung involvement. These results should be ratified in larger series.
Disclosure of Interest: None declared
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AB0198 DIFFERENTIAL CHARACTERISTICS OF PATIENTS DISCONTINUATING SEVERAL BIOLOGICAL THERAPIES IN A COHORT OF RHEUMATOID ARTHRITIS PATIENTS

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Background: The treatment of Rheumatoid Arthritis (RA) has been transformed in the last decade with the introduction of biologic therapy. Nevertheless, a substantial proportion of patients (pts) are found to be primary or secondary nonresponders and will receive several biologics during the course of the disease. Evidence is lacking on the characterization of patients failing several agents and those who have adequate clinical response to their first biological treatment.
Objectives: To compare demographic, clinical and analytical characteristics in a cohort of RA pts who have failed treatment with at least two biological agents ("switchers") and another cohort of RA patients showing a sustained clinical good response to their first therapy ("maintainers"). As a secondary objective, reasons for therapy discontinuation were also evaluated.
Methods: A total of 186 patients under biological therapy of the RA-PAZ cohort were included in this observational study. In this cohort, 63 pts were switchers and 123, maintainers. Baseline demographic data and clinical disease activity (DAS 28 -ESR), clinical improvement (delta-DAS 28) and serological data (CRP and ESR) were evaluated at baseline and sixth months after starting the first biological treatment.Serum anti-drug antibodies (ADA) were measured by bridging ELISA at the last visit available during the follow-up period under the first treatment. Reasons for discontinuation of the first therapy and the number of biologic treatments received during the course of the disease were also evaluated.
Results: Demographic and clinical characteristics of both groups are shown in Table 1.Mean Age (49,96±10,82 vs 53,77±12,91,p=0,046) and disease duration (6,79±6,19 vs 9,97±8,56,p=0,001) prior to biologic therapy initiation were lower in the switchers.Furthermore, a higher proportion of switchers had extraarticular manifestations in comparison to the maintainers (18/63 (28,6%) vs 16/121 (13,2%),p=0,016). Clinical activity at baseline (DAS28: 5,74±1,26 vs 5,01±1,14,p=0,01) and after 6 months of starting the first biological therapy (DAS28: 4,45±1,6 vs 3,22±1,1,p=0,001) were statistically significant higher in the switchers. At the last visit under the first biologic, there were also more ADA-positive pts in the switchers (6/25 (24%) vs 1/73 (1,4%), p=0,01).Moreover, duration under biologic treatment was higher in this group. In terms of the reason for discontinuation of the first biologic, 22,2% of pts showed primary lack of efficacy;38,1%, secondary loss of efficacy; 33,3%, adverse effects;4,8%interrupted because of other reasons and 1,6% because of

Pts characteristics	Switchers n= 63	Maintainers n= 123	P value
Baseline characteristics at the initiation of the 1st biological therapy (1BT)			
Female, n/N (%)	49 / 63 (77,8%)	102 / 122 (83,6%)	NS
BMI (kg/m2.) ± DS	27,31 ± 5,37	26,23 ± 4,96	NS
Smoking habit - Non-smoker - Smoker - Ex smoker	38/ 61 (62,3%) 11/61 /18%) 12/61 (19,7%)	69 / 115 (60%) 19 / 115 (16,5%) 27/ 115 (23,5%)	NS
Age at the starting of the 1BT ± DS	49,96 ± 10,82	53,77 ± 12,91	P= 0,046
Time from diagnosis to 1BT ± DS (y)	6,79 ± 6,19	9,97 ± 8,56	P= 0,001
Co-therapy (DMARDs) ± DS	27,31 ± 5,37	26,22 ± 4,96	NS
Auto-antibodies (UI/ml) - FR +, n/N (%) - ACPA +, n/N(%)	50 / 63 (79,4%) 97/118 (82,2%)	93/121 (76,9%) 53/62 (85,5%)	NS NS
Erosions, n/N(%)	36 / 52 (69,2%)	67/101 (66,3%)	NS
Extraarticular manifestations, n/N(%)	18/63 (28,6%)	16/121 (13,2%)	P= 0,011
Monotherapy, n/N (%)	3/ 63 (4,8%)	6 /122 (4,9%)	NS
Baseline activity ± DS - DAS – 28 ± DS - PCR ± DS - VSG ± DS	5,74 ± 1,26 13,82 ± 20,8 33,63 ± 22,03	5,01 ±1,14 10,26 ± 13,6 29.4 ±18,36	P=0,001 NS NS
6 months after the initiation of the 1st biological therapy			
Six months activity ± DS - DAS-28 ± DS - Delta-DAS 28 ± DS	4,44 ± 1,61 1,40 ± 1,6	3,22 ± 1,10 1,77 ±1,2	P= 0,001 NS
Last visit available after the initiation of the 1BT			
ADA+, n/N (%)	6 /25 (24%)	1/ 73 (1,4%)	P= 0,01
At the last visit available after the initiation of the 1st biological therapy			
Age, mean ± DS	61,23 ± 11,8	61,05 ± 12,8	NS
Time of follow-up until the last visit available ± DS, (years)	16,48 ± 7,5	16,71 ± 9,9	NS
Mean time under biologic ± DS, (y)	9,48 ± 4,3	6,72 ± 4,6	P=0,001

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