Table 1 Patient characteristics and group distribution

	General n = 100	Group 1 (No intervention) n = 49	Group 2 (Lifestyle changes) n = 18	Group 3 (LLD) n = 33	p
Female gender, n (%)	96 (96)	47 (95.9)	18 (100)	31 (93.9)	0.58
Age (years), mean ± SD	56.7 ± 9.7	52.2 ± 8.8	62.4 ± 9.9	60.2 ± 7.6	< 0.001
Disease duration (years), median (IQR)	10.3 (4.2 – 17.9)	10.1 (3.8 – 16.2)	13.8 (9.3 – 21.5)	9 (3 – 19.7)	0.181
Disease activity (DAS28-CRP), median (IQR)	3.2 (1.9 – 4.1)	2.9 (1.9 – 4.1)	3.7 (2.2 – 4.2)	3.4 (1.8 – 4.2)	0.639
RF IgG (IU/ml), median (IQR)	8.8 (4.1 – 22.9)	8.4 (4.1 – 24.7)	7.25 (4 – 15)	11.5 (4.8 – 31.7)	0.381
RF IgM (IU/ml), median (IQR)	145.9 (52 – 200)	160.1 (35.4 – 200)	160.7 (57.8 – 200)	100 (48.9 – 200)	0.933
RF IgA (IU/ml), median (IQR)	44.3 (14.3 – 148.6)	41 (13.1 – 144.9)	38.3 (15.3 – 187.2)	67.1 (16.4 – 116.7)	0.935
ACPA (IU/ml), median (IQR)	99.2 (4.5 – 198.4)	100 (4.1 – 196.6)	18.4 (5.2 – 199.1)	114.4 (5 – 198.6)	0.970

SD: Standard deviation, IQR: Interquatrile range, DAS28-CRP: Disease activity scale using 28 joints – C-reactive protein, RF: Rheumatoid factor, ACPA: Anti-cyclic citrullinated peptide antibodies. LLD: Lipid-lowering drug.

activity and autoantibody levels, only age added statistically significantly to the prediction ($p<0.001$).

Conclusions: There was indication for preventive intervention in more than half of our patients. Age is a determinant factor that increases CV risk in RA patients independently from disease-specific factors. Treatment to lipid targets is essential to reduce their risk of CV morbidity and mortality (3). A prospective study evaluating treatment success rate is needed to further evaluate the intervention of the clinic.

References:

[1] Galarza-Delgado DA, Azpiri-Lopez JR, Colunga-Pedraza IJ, et al. Comparison of statin eligibility according to the Adult Treatment Panel III, ACC/AHA blood cholesterol guideline, and presence of carotid plaque by ultrasound in Mexican mestizo patients with rheumatoid arthritis. Clin Rheumatol. 2016;35(11):2823–7.

[2] Rollefstad S, Kvien TK, Holme I, et al. Treatment to lipid targets in patients with inflammatory joint diseases in a preventive cardio-rheuma clinic. Ann Rheum Dis. 2013;72(12):1968–74.

[3] Rollefstad S, Ikdahl E, Hisdal J, Olsen IC, et al. Rosuvastatin-Induced Carotid Plaque Regression in Patients With Inflammatory Joint Diseases: The Rosuvastatin in Rheumatoid Arthritis, Ankylosing Spondylitis and Other Inflammatory Joint Diseases Study. Arthritis Rheumatol. 2015;67(7):1718–28.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2017-eular.5574

AB0310 PREVALENCE OF COMORBIDITIES OF RHEUMATOID ARTHRITIS IN A MEXICAN MESTIZO POPULATION

D.Á. Galarza-Delgado[1], J.R. Azpiri-López[2], I.J. Colunga-Pedraza[1], R.E. Ramos-Cázares[1], F.J. Torres-Quintanilla[2], A. Valdovinos-Bañuelos[1], R.I. Arvizu-Rivera[3], A. Martínez-Moreno[3], J.A. Cárdenas-de la Garza[3], R. Vera-Pineda[3]. *[1]Rheumatology; [2]Cardiology; [3]Internal Medicine, Universidad Autónoma de Nuevo León, Monterrey, Mexico*

Background: Patients with rheumatoid arthritis (RA) have an increased risk of developing comorbid conditions which are associated to increased mortality, hospital admissions, higher costs of care and inability to work (1, 2).

Objectives: To evaluate the prevalence of comorbidities in a Mexican mestizo population of RA patients.

Methods: We performed a cross-sectional study in which RA patients who were admitted to our outpatient clinic between August 2014 and December 2016 were consecutively enrolled. We collected data regarding demographics, disease characteristics (activity, severity, treatment), comorbidities (cardiovascular, infections, cancer, and osteoporosis), and performed blood tests at the time of the patient's visit to the clinic.

Results: We analyzed 225 patients. Their characteristics are shown in Table 1. Age, 55.7±8.3 years (mean ± SD); disease duration, 9.5 (4 – 15.5) (median (IQR)); female gender, 93.7%; Disease Activity Score using 28 joints–C-reactive protein (DAS28-CRP), 3 (2 – 4) (median (IQR)); past or current methotrexate use, 84.9%; past or current use of any other conventional disease modifying anti-rheumatic drug (cDMARD), 52.4%; past or current use of biological agents, 8%. The most frequently associated diseases were: hypertension, 29.8%; dyslipidemia, 27.1%; osteoporosis, 19.1%; diabetes, 12.4%; hypothyroidism, 6.2%; solid malignancies (excluding basal cell carcinoma), 4.4%. Risk factors were also evaluated, the most prevalent was overweight (BMI $\geq$25 <30) present in 101 (44.9%) of our patients. A total of 71 (31.6%) had obesity (BMI $\geq$30). The systematic evaluation of our patients allowed us to detect abnormalities in vital signs, such as elevated blood pressure in 12.4%, and to identify conditions that manifest as laboratory test abnormalities, such as hyperglycemia in 27.1% and hyperlipidemia in 49.8%.

Conclusions: This study confirms the high prevalence of comorbidities in RA patients. Among our cohort, 63.5% had at least one comorbidity, being those associated with cardiovascular disease the most common. With a systematic assessment (3) including a thorough physical examination, vital signs and laboratory tests, it is possible to detect comorbid conditions that would otherwise remain unrecognized.

Table 1 Demographic characteristics

Variable	Result
Women, n (%)	211 (93.8)
Age (Years), mean ± SD	55.71 ± 8.38
Disease duration (years), median (IQR)	9.57 (4 – 15.58)
BMI (kg/m2), median (IQR)	27.41 (25.16 – 31.62)
Normal, n (%)	53 (23.6)
Overweight, n (%)	101 (44.9)
Obese, n (%)	71 (31.6)
Smoking, n (%)	20 (8.9)
DAS28-CRP, median (IQR)	3.01 (2.04 – 4.08)
Joint surgery due to RA, n (%)	25 (11.1)
Medication, n (%)	
Prednisone	135 (60)
Methotrexate	191 (84.9)
Other non-biologic DMARDs	118 (52.4)
Biologic DMARDs	18 (8)

References:

[1] Dougados M, Soubrier M, Antunez A, Balint P, Balsa A, Buch MH, et al. Prevalence of comorbidities in rheumatoid arthritis and evaluation of their monitoring: results of an international, cross-sectional study (COMORA). Ann Rheum Dis. 2014;73(1):62–8.

[2] Gabriel SE, Michaud K. Epidemiological studies in incidence, prevalence, mortality, and comorbidity of the rheumatic diseases. Arthritis Res Ther. 2009;11(3):229.

[3] Baillet A, Gossec L, Carmona L, Wit M, van Eijk-Hustings Y, Bertheussen H, et al. Points to consider for reporting, screening for and preventing selected comorbidities in chronic inflammatory rheumatic diseases in daily practice: a EULAR initiative. Ann Rheum Dis. 2016;75(6):965–73.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2017-eular.1523

AB0311 RESULTS OF SCREENING FOR TUBERCULOSIS INFECTION IN PATIENTS WITH RHEUMATOID ARTHRITIS BEFORE AND ON TREATMENT WITH BIOLOGICAL DMARDS

D. Karateev[1], S. Borisov[2], T. Fomina[2], G. Loukina[3], E. Luchikhina[4], L. Guntupova[2], A. Satybaldyev[4]. *[1]Nasonova Research Institute of Rheumatology; [2]Moscow Centre against tuberculosis; [3]Moscow clinical scientific center; [4]Early arthritis department, Nasonova Research Institute of Rheumatology, Moscow, Russian Federation*

Background: The prevalence of tuberculosis infection in Russia is much higher than in Western Europe. Therefore, screening for TB infection in patients with RA before therapy with biological agents is of particular importance. At the same time, reliable information on the results of screening are very few.

Objectives: Explore the results of the application of different methods of diagnosis of tuberculosis infection in RA patients before and during treatment with biological agents.

Methods: We used the data from the Russian register "Observational REgister of arthritis in cLinical practice" (OREL). 1471 RA patients were screened for TB infection before prescribing biologics, of whom 829 patients were exposed to TB infection monitoring on therapy by biologics. The group included 21.1% men, 78.9% women; at the time of initial screening age was 50,0±0,4 years, the duration of the disease 8,5±3,8 yrs, 68,3% RF +, 85.1% anti-CCP +, DAS28-ESR 5,7±1,1, 95,7% used synthetic DMARDs, 60,1% used systemic steroids. We used PPD (Mantoux) test, Diaskin test (intradermal test with tuberculosis recombinant allergens CFP10-ESAT6) and QuantiFERON-TB Gold (QFT) test (in some patients), chest X-ray, chest CT scan (if needed), all the patients were consulted by phthisiatrician. PPD and Diaskin test results were considered positive if the papule was $\geq$5 mm. Duration of treatment with biologics (anti-TNFs and others) varied widely (2–154 months), making a total of 2552,4 patient-years.

Results: At screening, we got 40,3% positive results of PPD test (significantly more in younger patients and patients who did not receive steroids), 16,5% positive results of Diaskin test (with no significant correlations with age and steroids). Positive results matched in 19.9% of cases, negative - in 51.9%. Discordant results in 217 patients were in 92,2% cases related to negative results of Diaskin in PPD-positive persons. Active TB was found after additional examination in 3 (0,2%) patients, inactive TB-related changes were revealed in 124 (8,8%) patients. Positive PPD and Diaskin results, but not QFT, correlated with signs of inactive TB lesions. Positive results of PPD and QFT tests matched in 36.5% of cases, negative - in 18.7%, Diaskin and QFT – in 33,6% and 41,1% of cases resp. As a result of screening, 224 pts were treated by isoniazid or combination of anti-TB drugs before initiation of biologics. On treatment with biologics, 114 (13,7%) pts became PPD-positive and 56 (6,8%) Diaskin positive, active TB was diagnosed in 8 (0,97%) pts.

Conclusions: In carrying out TB screening before prescribing biologics in high-

risk population of TB infection it is reasonable to use both PPD and Diaskin tests, and repeat them every 6 months on treatment.
Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2017-eular.6988

AB0312 US7 SCORING SYSTEMS FOLLOW-UP 48 WEEKS TNF-A ANTAGONISTS PLUS MTX TREATMENT FOR HIGH DISEASE ACTIVITY REFRACTORY RHEUMATOID ARTHRITIS

D.F. Lin[1], X. Gu[1], J. Cao[1], Y. Pan[2], J. Gu[1]. [1]*Rheumatology department;* [2]*Ultrasound department, the 3rd Affiliated Hospital of Sun Yat-Sen University, Guangzhou, China*

Background: US7 score is the ultrasound scoring system for rheumatic arthritis (RA) with the most clinical evidence so far. Several reports accessed its inter-, intra-observer agreement, its specificity, sensitivity and practical possibility compared to more complex scoring systems such as 72-joints scoring systems, which showed it is an convenient tool for clinical use.
Objectives: Our goal is to employ US7 to investigate the ultrasonic changes during biological agents plus MTX Treatment in high disease activity refractory RA patients in Yellow people.
Methods: All cases were diagnosed as RA fulfilling 2009 ACR/EULAR classification criteria and evaluated as high disease activity for DAS28>5.1 with MTX+HCQ+SASP or MTX+LEF invalid therapy for more than 3 months before baseline. Biological agents including TNF-a antagonist or IL-6 antagonist plus with MTX 10mg qw were then given and ultrasound was performed by 2 observers blinded to physicial examinations and blood tests at 0, 4, 12, 24, 48w. US examination referred to US7 scores by Backhaus et al. DAS28 were employed to assess disease activity.
Results: 1) 26 subjects were enrolled in the program up to now. 22 were given TNF-a antagonists and 4 were given IL-6 antagonists. 17 finished 24 weeks follow-up. 1 withdrew for TB infection at 12 week and 1 withdrew for fungi pneumonia at 8 weeks. Mean age of 17 was 44.3±11.8 years old, female-male ratio was 15:2, and disease duration was 71 months. All were RF and ACPA postIve.
2) DAS28-CRP, DAS28-ESR had prominent decrease from 0 to 24 week (DAS28-CRP: 0w: 4w: 12w: 24w = 6.76, 5.98, 5.09, 4.48, DAS28-ESR: 0w: 4w: 12w: 24w = 6.36, 4.94, 3.99, 3.35, paired Wilcoxon test, all sig<0.05)
3) The same prominent improvement also well reflected by the ultrasonic scores: average sum scores (0w:4w:12w:24w = 22.9:15.6:13:9.3, all sig <0.05 except 4w: 12w, sig=0.126), synovitis grey scale scores (0w:4w:12w:24w = 11.6:9.3:8.1:6.0, all sig <0.05, except 0w:4w, sig=0.068), synovitis Power Doppler scores (0w:4w:12w:24w = 8.5:4.9:3.8:2.7, all sig <0.05, except 4w:12w,4w:24w, 12w:24w, sig = 0.361,0.227, 0.235), tenosynovitis grey scale scores (0w:4w:12w:24w = 0.63:0.25:0.25:0.07, all sig <0.05, except 4w:12w,4w:24w, 12w:24w, sig = 1.0 , 0.26, 0.26), tenosynovitis Power Doppler scores (0w:4w:12w:24w = 1.00:0.19:0:0 all sig <0.05, except 4w:12w,4w:24w, 12w:24w, sig = 0.18, 0.18, 1.0), bone erosion scores (0w:4w:12w:24w = 1.2:1.0:0.94:0.53, all sig <0.05 except 0w:4w, 4w: 12w, 4w:24w, 12w:24w, sig = 0.083, 0.317, 0.102, 0.102). The above data showed the sum scores found biological agents improved thorough the whole course as Das28 did. Synovitis seemed to be eliminiated faster than tenosynovitis and the repair of bone erosion was the latest event compared to decreased synovitis and tenosynovitis.
Conclusions: It is recommended US7 used in clinic for US7 scoring system could reflect more exquisitely than DAS28 in more refined aspects including the changes of tendon, joint, bone at different phrases during biological agent treatment for RA. However, more samples should be included in our study to illuminate above conclusion with sufficient evidence.
Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2017-eular.2640

AB0313 CARDIOVASCULAR RISK, BIOLOGICS AND ANTI-CYCLIC CITRULLINATED PEPTIDE POSITIVITY IN RHEUMATOID ARTHRITIS

E.A. Jauregui, C.A. Agudelo, C. Aldana, Y.A. Muñoz. *Rheumatology, Riesgo de fractura S.A-CAYRE, Bogotá, Colombia*

Background: Co-factors and traditional cardiovascular disease (CVD) risk factors contribute to atherosclerosis in rheumatoid arthritis (RA). Several records since 1953 have reported an increase of up to 4 times the CVD risk and mortality in RA patients. Physicians who evaluate these patients forget to perform or record this assessments in medical records. Since 1948, the Framingham Heart Study became an ambitious project in health research, to identify the general causes of heart disease and stroke, they proposed a new risk estimator of general cardiovascular risk defined as CVD.This estimator was calibrated for Colombia and should be multiplied by a factor of 0.7
Objectives: To describe whether the request and registration of CV risk factors is performed. Also to estimate 10-year risk of CVD in RA patients and to compare the CVD risk among patients receiving or not biological therapy and those with positive and negative anti-cyclic citrullinated peptide (anti-CCP)
Methods: We conducted an observational descriptive study of patients who attended a specialized rheumatology clinic in Bogotá, Colombia from 2010 to 2015. Patients with RA were enrolled who had completed at least 5 year of follow-up. The information required to estimate CVD risk was obtained from medical records. Other variables included were biological therapy and test result of anti-CCP. For the calculation of CVD risk, the Framingham estimator was used and adjusted for the Colombian population. Additionally, patients who had 2 or more of these criteria: More than 10 years of evolution of RA, positive rheumatoid factor and/or extra-articular compromise, the risk was adjusted by multiplying by 1.5. Nonparametric statistics (Mann-Whitney U test) was used.
Results: We identified 273 eligible patients with RA with mean age 61, 66% women. Only 117 (42.8%) had recorded in their charts all variables to calculate CVD risk. We found that 32% had high blood pressure, 7% type II DM, 11% Obesity and 13% smoking. For the population evaluated, 10-year CVD risk median was 12.42% and for Colombia was 8.69%, adjusting this risk according to the disease in Colombia, increased to 13.03%. When we compare the 10-year CVD risk in anti-CCP positive patients (median: 11.15) and anti-CCP negative (median: 8.22) we did not find difference (p: 0.614). However, we found differences in the 10-year CVD risk median 9.04 vs. 23.25, 10-year CVD risk adjusted to Colombia median 6.32 vs. 16.31 and 10-year CVD risk adjusted to Colombia and RA median 6.81 vs. 13.39 between patients using biological therapy versus patients without receiving respectively (p: <0.001)
Conclusions: Only 42.8% of the sample had all CV risk factors requested and registered in the clinical record, so should promote improvement in the health team to increase this. The average 10-year CVD risk in all people with RA was 12.42%, and in patients who met the criteria to be multiplied by the factor 1.5 increased to 13.03%, which means that these patients should be reported this and applied risk prevention guidelines regarding obesity and cholesterol levels. Despite population receiving biologics are younger, they had lower CV risk. We need more research to confirm this results
References:
[1] Goff DC Jr, et al. 2013 ACC/AHA Cardiovascular Risk Guideline.
[2] M J L Peters, D P M Symmons, D McCarey et al. Ann Rheum Dis 2010;69:325–331.
[3] Arnett D, Goodman R, Halperin J, et al. Circulation. 2014; 130: 1662–1667.
Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2017-eular.6465

AB0314 HIGH INFLAMMATORY ACTIVITY AS A PREDICTOR OF INCREASED ARTERIAL STIFFNESS IN PATIENTS WITH RHEUMATOID ARTHRITIS

E. Troitskaya, S. Velmakin, S. Villevalde, Z. Kobalava. *Propaedeutics of internal disease, RUDN University, Moscow, Russian Federation*

Background: Patients with rheumatoid arthritis (RA) have a high risk of cardiovascular (CV) morbidity and mortality. Arterial stiffness (AS) is a known predictor of CVD. Relationships between inflammation and arterial stiffness in patients with RA are not well understood.
Objectives: The aim of the study was to evaluate parameters of (AS) and their associations with inflammatory activity in patients with RA.
Methods: 62 patients with RA (EULAR 2010) without known CVD were examined (73% females,age 58,5±15,4 (M±SD) years, 13% smokers, 61% with AH, 34% with dyslipidemia). Median duration of RA was 8 years (IQR 3–17). Seropositive RA was diagnosed in 69% of patients. Median hsCRP was 12,1 mg/dl (IQR 2,2;23,4 mg/dl), median rheumatoid factor (RF) was 32,5 IU/ml (IQR 8,3;173 IU/ml). Mean DAS-28 (ESR) was 4,7±1,2. All patients received disease-modifying antirheumatic drugs, 22 (38%) - biological treatment. Parameters of AS were assessed by applanation tonometry (SphygmoCor, AtCor). Cardio-ankle vascular index (CAVI), ankle-brachial index (ABI) and vascular age were measured by VaSera 1500. Carotid intima-media thickness (CIMT) was evaluated by ultrasound. Pulse wave velocity>10,0 m/s and CAVI>9,0 were considered as AS increase. ABI<0,9 and CIMT>0,9 were considered as markers of subclinical atherosclerosis. p<0.05 was significant.
Results: Mean PWV was 9,3±3,2 m/s. PWV>10m/s was observed in 32,3% patients, CAVI>9,0 - in 25,8%, ABI<0,9 – in 6,5% and CIMT>0,9 – in 21%. Patients with PWV>10m/s were older (69,8±8,5 vs 53,2±15,1 years), had higher BMI (29,3±6,5 vs 24,7±4,8 kg/m^2), longer duration of AH (median 11,5 [IQR 5,5;17] vs 0 [IQR 0;5] years), higher BP levels (144±20/85±9 vs 123±14/77±10 mmHg), lower level of GFR (64±17 vs 89±19 ml/min/1,73m^2), higher levels of LDL-C (3,7±0,9 vs 3,2±1,0 mmol/l), plasma glucose (5,6±0,9 vs 4,8±0,7 mmol/l), hs-CRP (median 22 [IQR 13,3;60] vs 6,7 [IQR 1,6;17,2] mg/dl), higher CAVI (9,5±1,1 vs 7,6±1,4), vascular age (71±8,4 vs 53,4±17,5 years) and CIMT (1,01±0,3 vs 0,7±0,2 mm), p<0,05 for trend. Spearmen analysis revealed significant positive correlations between PWV and age (r=0,7), BMI (r=0,4), duration of AH (r=0,6), SBP (r=0,6), DBP (r=0,4), plasma glucose (r=0,3), hs-CRP (r=0,3), vascular age (r=0,6), CIMT (r=0,7), CAVI (r=0,6) and negative correlations with eGFR (r=-0,6). hsCRP correlated with PWV, aortic pulse pressure (r=0,3), CAVI (r=0,5), vascular age (r=0,5) and ABI (r=-0,5). Multiple regression analysis confirmed that AH duration (β=0,2, p=0.03), SBP (β=0,6, p<0.0001), GFR (β=-0,3, p=0,005) and hs-CRP-level (β=0,3, p=0.000009) were independent predictors of AS increase.
Conclusions: High prevalence of AS increase is observed in patients with RA without known CVD. Elevation of hsCRP as well as other traditional risk factors is an independent predictor of PWV increase in patients with RA.
References:
[1] Ambrosino P. et al. Subclinical atherosclerosis in patients with rheumatoid