higher DAS-28/SDAI/CDAI/RAPID-3, lower rate of ACR/EULAR Boolean criteria remission, use of higher dose of glucocorticoid, and higher rate of bone erosion not only on foot but also hand X-rays. Among those patients, 174 patients (8.5%) were in DAS 28 clinical remission. Twenty-one of 174 patients (12.1%) had foot arthritis, who showed higher swollen and tender joint count, RAPID-3 score, and patients' global assessment but not physicians' global assessment than those without foot arthritis. Among patients with foot arthritis, rate of complete remission was the highest in patients with CDAI (66.7%).

Conclusions: In patients with rheumatoid arthritis, foot and/or ankle arthritis is associated with high disease activity, not achieving complete remission despite of various clinical remission criteria and discordance between patients' and physicians' global assessment.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.4525

AB0310

USING TREAT-TO-TARGET STRATEGY BY DETERMINING PHYSICAL DISABILITY AND GLUCOCORTICOID REDUCTION STRONGLY INFLUENCE FUNCTIONAL REMISSION IN RHEUMATOID ARTHRITIS

T. Hagiwara, K. Kamada, N. Namura. *Rheumatology, Takarazuka City Hospital, Takarazuka, Japan*

Background: The initial target in the treatment of rheumatoid arthritis (RA) is to achieve clinical remission (CR) through Boolean definition and/or index-based criteria and sustain CR, and the final target is to maximise long-term health-related quality of life (HRQoL) through arthritis control, joint damage prevention, function normalisation and social participation.¹

Objectives: We aimed to determine the factors that inhibit the achievement of functional remission (FcR) in terms of HRQoL.

Methods: A total of 227 patients with RA who had underwent first treatment between October 2014 and December 2017 and had not changed/added another disease-modifying anti-rheumatic drugs (DMARDs) for 12 weeks before the observation day were examined. We used daily-life function and social activity participation to evaluate HRQoL. We adopted the Health Assessment Questionnaire Disability Index (HAQDI) as daily-life functional assessment and EuroQoL 5 dimensions–5 levels (EQ5D) for health status with considerable potential assessment. FcR was defined in this study as HAQDI ≤ 0.5 and EQ5D ≥ 0.867 "0.867 is the lowest QoL score when only one category permits ≤ 2 of the 5 levels, but others need 1 in all five categories". We investigated their age at RA onset, sex, Steinbrocker stage and functional class, HAQDI, disease activity level, rheumatoid factor, anti-cyclic citrullinated peptide antibody at the first consultation, age, disease activity level, HAQDI, EQ5D, and status of methotrexate (MTX), glucocorticoids (GCs) and biologic/target synthetic DMARD (b/ts-DMARD) use at the last observational day. First, the assumed remissions were analysed using the FcR as a purpose variable for these factors. Subsequently, the odds ratio and 95% confidence interval (95% CI) were examined using multiple logistic regression analysis for the statistically significantly different factors and risk factors.

Results: The CR achievement rate at the last observational day by Boolean definition and Simple Disease Activity Index were 40.5% and 50.2%, respectively. The achievement ratio of HAQDI ≤ 0.5 , EQ5D ≥ 0.867 and FcR was 73.1%, 48.5%, and 46.7%, respectively. The differences in disease duration, stage, class and HAQDI at the time of the first interview; state of MTX, GCs and b/ts-DMARD use; and age at the last observational day for the achievement of FcR were statistically significant. The odds ratios, as determined by multiple logistic regression analysis of the above-mentioned results, were 1.034 (95% CI 0.982–1.088, $p=0.202$) for disease duration (per 1 year), 1.576 (95% CI 1.257–1.977, $p<0.001$) for HAQDI at first interview (per 0.5), 0.615 (95% CI 0.277–1.365, $p=0.232$) and 4.943 (95% CI 1.683–14.524, $p<0.01$) for GCs state (non-use vs temporal use and non-use vs continuous use, respectively), and 1.164 (95% CI 1.037–1.307, $p<0.05$) for age at last observational day.

Conclusions: HRQoL is important as they will influence future treatment strategy. Our results indicated the importance of functional assessment at first interview and demonstrated how to use GCs for the treatment of RA. Ageing always contributes to patients' frailty, and it is unavoidable it. To achieve FcR, functional assessment should be performed during the first interview and short-term use of GC is useful for prompt functional recovery, in consideration of ageing.

REFERENCE:

- [1] de Wit MP, et al. *ARD* 2011;70(6):891–895. doi:10.1136/ard.2010.14662

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.2810

AB0311

DETERMINANTS OF NON-NOCICEPTIVE PAIN IN RHEUMATOID ARTHRITIS

T.M. Rocha, S. Pimenta, M. Bernardes, A. Bernardo, M. Barbosa, R. Lucas, L. Costa. *Rheumatology, Centro Hospitalar de São João, Porto, Portugal*

Background: A neuropathic component (NP) of Rheumatoid Arthritis (RA) pain was described in nearly a third of the patients. Radiographic damage is a reflection of cumulative disease activity and other pathophysiological processes. Some clinical predictors of RA NP were recently identified by our group, but association and adjustment for radiographic damage were not studied.

Objectives: To estimate the clinical predictors of NP in RA patients adjusting for their radiographic damage.

Methods: Cross-sectional study was performed with RA patients followed at our Rheumatology department. Patients with diagnosed neuropathy or non-RA risk factors for NP were excluded. Selected patients were evaluated in a medical visit. Demographic and clinical data were collected and two questionnaires were applied to assess NP: the Leeds Assessment of Neuropathic Symptoms (LANSS) and the painDETECT (PDQ). Wrists, hands and feet radiographic studies from the previous 12 months were classified according to the modified van der Heijde Sharp's method by one trained reader, blinded for patient clinical variables and treatment allocation. Univariate and multivariate logistic regression were performed adjusting for global radiographic score (GS). Significance level was set as <0.05 .

Results: Ninety one RA patients were included. Seventy (77%) were women, with a mean (SD) age of 55.6 (10.8) years and median disease duration of 12 years.^{2–41} 84% patients were seropositive for Rheumatoid Factor and/or ACPA; 85 (93%) were treated with DMARDs and 41% with a biological DMARD (bDMARDs). The mean (SD) DAS28 4V CRP was 3.15 (0.77). The median joint erosion score was 28 (range: 3–143) and the median joint space narrowing (JN) was 46 (range: 10–133). Forty-two (46%) patients had LANSS NP (≥ 12) and 29% had a possible/likely NP in the PDQ (>12). JN was a significant negative predictor of LANSS NP (OR: 0.98, $p=0.02$). After adjusting for GS, gender was not associated with NP. Pain VAS, patient global activity and the tender joint count were positive predictors of NP by both tests. Swollen joint count, ESR or CRP levels were not significantly associated with NP. DAS28 CRP was a significant positive predictor of NP by both tests (OR 1.89 for LANSS and OR: 2.06 for PDQ, $p<0.05$); as well as the HAQ score (OR: 2.68 and OR: 4.85, respectively, $p<0.05$). Positivity for ACPA was a negative predictor of LANSS NP (OR: 0.31, $p=0.048$), as previously described. Current methotrexate treatment had lower odds of LANSS NP (OR: 0.35, $p=0.04$) but did not remained significant after adjustment for DAS28 CRP. Previous/current Hydroxychloroquine (HCQ) treatment was once more a negative predictor for PDQ NP (OR: 0.11, $p=0.04$) and remained significant after adjustment for DAS28 CRP. Previous/current leflunomide (LFN) was newly a positive predictor of NP in both tests (OR: 3.41 for LANSS and OR: 2.95 for PDQ, $p<0.05$), persisting after disease activity adjustment for LANSS NP. No other associations were found.

Conclusions: Consistently with our previous data, this study supports an association between NP and disease activity/functional scores but not with objective inflammatory measures. Possible increased risk of NP in LFN treated patients was newly pointed and protective role of ACPA positivity and HCQ was reinforced.

REFERENCES:

- [1] Christensen AW, et al. *Scand J Rheumatol* 2016;1–9.
- [2] Martins-Rocha T, et al. *Ann Rheum Dis*, 2017;76(suppl 2):1177.

Disclosure of Interest: T. Rocha Grant/research support from: Portuguese Society of Rheumatology/Alfa Wassermann on May 2015, S. Pimenta: None declared, M. Bernardes: None declared, A. Bernardo: None declared, M. Barbosa: None declared, R. Lucas: None declared, L. Costa: None declared

DOI: 10.1136/annrheumdis-2018-eular.5769

AB0312

INFLAMMATORY ACTIVITY APPEARS WELL CONTROLLED IN MOST PATIENTS WITH RHEUMATOID ARTHRITIS (RA) IN CONTEMPORARY RHEUMATOLOGY CARE, BUT JOINT DAMAGE AND DISTRESS REMAIN AS PROBLEMS OF GREATER MAGNITUDE THAN INFLAMMATION

T. Pincus, I. Castrejon, J.A. Block. *Rheumatology, Rush University Medical Center, Chicago, USA*

Background: Rheumatologists traditionally use quantitative measures such as swollen and tender joint counts and laboratory tests to assess inflammatory activity. However, structural damage to joints, as well patient distress seen as fibromyalgia, depression, etc., may be important clinical problems for many RA patients, but are described narratively in the medical record rather than estimated

by the physician as quantitative data. Quantitation only of inflammation, while damage and distress are recorded only as narrative descriptions, may limit the capacity to document optimally both clinical status and the rationale for clinical decisions, such as non-intensification of therapy according to "treat-to-target" in patients who may have moderate or high scores on an RA index¹. We have used 0–10 visual analogue scales (VAS) to score not only physician global assessment (DOCGL), but also levels of inflammation, damage, and distress.

Objectives: To analyse 0–10 VAS for DOCGL, as well as for levels of inflammation, damage, and distress in patients with rheumatoid arthritis (RA).

Methods: At one academic site, rheumatologists complete four 0–10 VAS for overall physician global assessment (DOCGL), as well as for inflammation or reversible findings (DOCINF), joint and other organ damage or irreversible findings (DOCDA), and patient distress such as fibromyalgia, depression, etc. (DOCSTR). In a cross-sectional study, mean values of 4 physician VAS were computed in RA patients, and 3 subgroups were compared according to whether scores for inflammation were 2/10 units higher than for damage, similar for inflammation and damage (within 2/10 units), or 2/10 units higher for damage than for inflammation. Mean levels of the 4 VAS in the 3 groups were compared, using analysis of variance (ANOVA).

Results: In 50 unselected RA patients, mean 0–10 DOCGL VAS was 4.2, inflammation VAS 2.2, damage VAS 3.5, and distress VAS 2.2 (table 1). Only 9/50 patients had an inflammation VAS more than 2/10 units greater than damage VAS; in these patients, mean VAS for DOCGL=4.6, inflammation=4.9, damage=2.1, and distress=1.1. In 21 patients in whom inflammation=damage, mean VAS for DOCGL=3.9, inflammation=1.8, damage=2.1, and distress=3.2. In 20 patients with damage >inflammation, mean VAS for DOCGL=4.4, inflammation=1.4, damage=5.7, and distress=1.7.

Abstract AB0312 – Table 1

	DOC/INF> DOCDA	DOC/INF= DOCDA	DOC/ DAM> DOCINF	TOTAL
N	9	21	20	50
VAS DOCGL	4.6	3.9	4.4	4.2
Mean subscale VAS				
Scores:				
VAS DOCINF	4.9	1.8	1.4	2.2
VAS DOCDA	2.1	2.1	5.7	3.5
VAS DOCSTR	1.1	3.2	1.7	2.2

Conclusions: Physician VAS scores indicated that a damage VAS was 50% higher than an inflammation VAS in all 50 RA patients (3.5 vs 2.2), and identical (2.1) in the 9 with an inflammation VAS 2 units higher than a damage VAS or 21 with an inflammation VAS within 2 units of a damage VAS. A mean distress VAS was identical to an inflammation VAS (2.2) in the 50 patients. Control of inflammation remains a primary concern for rheumatologists, but has improved considerably in recent years, as damage and distress may have become more prominent in routine patient care. Systematic quantitative VAS assessment of damage and distress, in addition to inflammation, appears of value to document patient status and support clinical decisions.

REFERENCE:

[1] Tymms K, et al. *Arthritis Care Res (Hoboken)* 2014;66:190–6.

Disclosure of Interest: T. Pincus Shareholder of: Dr. Pincus holds a copyright and trademark for MDHAQ and RAPID3 for which he receives royalties and license fees. All revenue is used to support further development of quantitative questionnaire measures for patients and doctors in clinical rheumatology care., I. Castrejón: None declared, J. A. Block: None declared

DOI: 10.1136/annrheumdis-2018-eular.3149

AB0313

PHYSICIAN GLOBAL ASSESSMENT OF THE STATUS OF PATIENTS WITH RHEUMATOID ARTHRITIS (RA) AT THEIR FIRST VISIT TO AN ACADEMIC ROUTINE CARE SETTING ARE EXPLAINED AS MUCH BY DAMAGE AND DISTRESS AS BY INFLAMMATION, ACCORDING TO PHYSICIAN RATINGS: SHOULD THE STRUCTURE OF RHEUMATOLOGY CARE BE MODIFIED?

T. Pincus, I. Castrejón, J.A. Block. *Rheumatology, Rush University Medical Center, Chicago, USA*

Background: A physician global assessment (DOCGL) on a 0–10 visual analogue scale (VAS) reflects inflammatory activity in patients who meet criteria for RA clinical trials, in which DOCGL is more efficient than laboratory tests or joint counts to distinguish active from control treatments.¹ However, in routine clinical

care, patients are not selected for inflammatory activity, and may have joint damage and/or distress (fibromyalgia, depression, etc.) as important clinical problems. Some rheumatologists consider damage and distress in assigning a 0–10 DOCGL; others consider only inflammation. One approach to resolve this matter is for physicians to estimate the proportion of DOCGL attributed to inflammation, damage, or distress (total=100%).

Objectives: To analyse a physician 0–10 VAS overall global assessment for estimates of the proportions attributed to inflammation, damage, or distress (total=100%).

Methods: Rheumatologists at one academic setting complete a 0–10 VAS for DOCGL, and estimates of the proportion of DOCGL attributed to inflammation, damage, and/or distress (total=100%). These scales were analysed in 38 new patients with RA seen between April and November 2017, using cross-tabulations to compare patients whose DOCGL was 0–4 vs 4.1–10 vs the proportion of inflammation, damage, or distress (total=100%) as 0%–40% or 41%–100%.

Results: Physician global assessment was 4–10 in 23/38 patients (61%) at first visit, and 0–4 in 15/38 (39%) (table 1). In all 38 patients, inflammation was rated as explaining 41%–100% of DOCGL in 11/38 (29%), compared to damage in 18/38 (47%), and distress in 6/38 patients (16%). Among the 23/38 patients with DOCGL 4–10, inflammation was rated as explaining 41%–100% of DOCGL in 6/23 (29%), versus 10/23 (43%) for damage, and 5/23 (22%) distress. Therefore, inflammation appear to account for >40% of DOCGL only in a minority of new RA patients, which were explained more by either damage or distress (or both).

Abstract AB0313 – Table 1. Number of patients in whom a 0–10 physician global assessment VAS was attributed by the physician to inflammation, damage, or distress (total=100%) at the initial visit of 38 patients with RA

Physician global assessment	All	0–4.0	4.1–10	All	0–4.0	4.1–10	All	0–4.0	4.1–10
% attributed by rheumatologist to...	Inflammation			Damage			Distress		
0%–40%	27	10	17	20	7	13	32	18	14
41%–100%	11	5	6	18	8	10	6	5	1
Total	38	15	23	38	15	23	38	15	23

Conclusions: At one academic rheumatology site, a physician global assessment VAS at the initial visit of patients with RA was explained as much by damage and/or distress as by inflammatory activity. One important limitation of the study is that some patients had already received treatment at other rheumatology sites. Nonetheless, the data indicate that damage and distress appear as prominent as inflammation in contemporary management of RA, reflecting a well-known delay in diagnosis and patient management. The findings suggest a possible need to restructure rheumatology practice to see patients more urgently, including education of primary care physicians, in order to improve outcomes for patients with RA. The data also support the possible value of physician estimates of the proportion of DOCGL attributed to inflammation, damage, or distress.

Disclosure of Interest: T. Pincus Shareholder of: Dr. Pincus holds a copyright and trademark on MDHAQ and RAPID3 for which he receives royalties and license fees. All revenue is used to support further development of quantitative questionnaire measures for patients and doctors in clinical rheumatology care., I. Castrejón: None declared, J. Block: None declared

DOI: 10.1136/annrheumdis-2018-eular.5569

AB0314

SETTING TREATMENT TARGET FOR JOINT SURGERY IN LOWER LIMBS IN PATIENTS WITH LONG-STANDING RHEUMATOID ARTHRITIS BASED ON MULTICENTER PROSPECTIVE COHORT STUDY; VALIDATION AND RELIABILITY OF OBJECTIVE INDEX OF ACTIVITY SPEED, TIMED UP AND GO TEST, FOR MEASURING PHYSICAL FUNCTION

T. Kojima¹, H. Ishikawa², S. Tanaka³, N. Haga⁴, K. Nishida⁵, M. Yukioka⁶, J. Hashimoto⁷, H. Miyahara⁸, Y. Niki⁹, T. Kimura¹⁰, H. Oda¹¹, K. Funahashi¹², S. Asai¹³, M. Kojima¹⁴, N. Ishiguro¹³. ¹Orthopedic Surgery, Nagoya University Hospital, Nagoya; ²Niigata Rheumatic Center, Niigata; ³Faculty of Medicine, The University of Tokyo; ⁴The University of Tokyo Hospital, Tokyo; ⁵Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama; ⁶Yukioka Hospital, Osaka; ⁷National Hospital Organization Osaka Minami Medical Center, Kawachinagano; ⁸National Hospital Organization Kyushu Medical Center, Fukuoka; ⁹Keio University School of Medicine, Tokyo; ¹⁰University of Toyama, Faculty of Medicine, Toyama; ¹¹Saitama Medical University, Morohongo Moroyama; ¹²Kariya-Toyota General Hospital, Kariya; ¹³Nagoya University Hospital; ¹⁴Nagoya City University Graduate School of Medical Sciences, Nagoya, Japan

Background: Total management including reconstructive joint surgery and rehabilitation should be needed for further improvements of physical function for long-