115 were on Biologics/Janus Kinase Inhibitors (JAK-Inh). Remission-rates in the monotherapy and combination DMARDs groups were approximately 60%, whilst the remission rate in the Biologics/JAK-Inh group was 41.7%. Amongst female patients 15.9% had erosions on X-ray at the time of diagnosis whilst the equivalent figure for male patients was 29.6%.

Conclusion: An association between male gender and the likelihood of erosions on X-Ray was observed. In addition an association between final medication and outcome was observed. An increased likelihood of non-remission was noted in patients that required escalation to Biologics/JAKs. A possible explanation for the lower levels of remission seen throughout the groups is the difficulty in achieving remission under the CDAI score as compared to DAS-28.

REFERENCES:

- [1] Smolen JS, Breedveld FC, Burmester GR, Bykerk V, Dougados M, Emery P, et al. Treating rheumatoid arthritis to target: 2014 update of the recommendations of an international task force. *Annals of the Rheumatic Diseases*. 2016;75(1):3.
- [2] Scott IC, Ibrahim F, Panayi G, Cope AP, Garrood T, Vincent A, Scott DL, Kirkham B; TITRATE Programme Investigators. The frequency of remission and low disease activity in patients with rheumatoid arthritis, and their ability to identify people with low disability and normal quality of life. *Semin Arthritis Rheum*. 2019 Aug;49(1):20-26. doi: 10.1016/j.semarthrit.2018.12.006. Epub 2018 Dec 28. PMID: 30685064.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2021-eular.2629

AB0131

DIFFERENCES IN CLINICAL PARAMETERS AND LABORATORY DATA OF RHEUMATOID ARTHRITIS PATIENTS IN REMISSION OR WITH LOW DISEASE ACTIVITY TREATED WITH BIOLOGIC AGENTS OR JANUS KINASE INHIBITORS

Y. Hirano¹, J. Hasegawa¹, H. Kosugiyama², D. Kihira², K. Hattori². ¹Toyohashi Municipal Hospital, Rheumatology, Toyohashi, Japan; ²Nagoya University Graduate School of Medicine, Orthopaedic Surgery and Rheumatology, Nagoya, Japan

Background: There are four kinds of drugs for rheumatoid arthritis (RA) patients who are refractory or intolerant to methotrexate (MTX) or other conventional synthetic disease-modifying anti-rheumatic drugs, namely, tumor necrosis factor inhibitors (TNFi), interleukin-6 inhibitors (IL-6i), abatacept (ABT) and Janus kinase inhibitors (JAKi). Although these drugs have distinct mechanism of action (MOA) to reduce disease activity of RA, the effects of these drugs of reducing disease activity or inhibiting joint damage are similar according past clinical trials. However, their different MOA may induce different change in body of RA patients. If there are some differences in body of RA patients treated different drugs which have different MOA, some differences may appear in clinical parameters and laboratory data we clinician are able to know in daily clinical practice.

Objectives: This retrospective cross-sectional study assessed differences in clinical parameters and laboratory data in RA patients who met the treatment goal with biologic agents (BIO) or JAKi.

Methods: Data from the Toyohashi RA database (TRAD) was used. The TRAD is a collection of single-center retrospective data. Participants were BIO- or JAK-treated RA patients with clinical disease activity remission (REM) or low disease activity (LDA) [clinical disease activity index (CDAI) ≤ 10] categorized by BIO treatment with TNFi (reference), IL-6i, or ABT, and JAKi treatment. Clinical parameters [tender joint counts (TJ), swollen joint counts (SJ), patient's global assessment (PtGA), patient's pain assessment (PainVAS), physician's global assessment (PhGA) and modified health assessment questionnaire (mHAQ)] and laboratory data [C-reactive protein (CRP), erythrocyte sedimentation rate (ESR), matrix metalloproteinase-3 (MMP-3), white blood cell counts (WBC), hemoglobin (Hb), platelet cell counts (PLT), neutrophils counts (Neut), lymphocyte counts (Lymph) and estimated glomerular filtration rate (eGFR)] were investigated in cross-sectional manner. They are statistically compared using the Dunnett test.

Results: 171 TNFi, 71 IL-6i, 50 ABT, and 18 JAKi cases are categorized in REM or LDA. Patients' characteristics (means) are as follows (TNFi/IL-6i/ABT/JAKi). Age (63.1/63.7/72.4/60.6; years old), RA duration (17.0/12.7/18.2/11.3; years), %female (83.0/71.8/88.0/83.3), %rheumatoid factor positive (81.9/80.3/90.0/88.9), %anti-cyclic citrullinated peptide antibody (84.6/74.6/97.9/73.3), %prednisolone (PSL) concomitant (3.5/4.2/18.0/11.1) and %MTX concomitant (77.2/15.5/26.0/83.3). Parameters with statistical significance (means) were: TNFi/IL-6i-ESR 34.5/14.0 mm/hr, MMP-3 47.5/71.9 ng/mL, WBC 6124/5404 /μL, Lymph 2112/1646 μL; TNFi/ABT-TJ 0.4/1.0, PtGA 13.3/20.0 mm, PainVAS 15.7/21.6 mm, PhGA 7.4/11.1 mm, CRP 0.1/0.4 mg/dL, ESR 34.5/44.2 mm/hr, MMP-3: 47.5/72.9 ng/mL, Lymph 2112/1816 μL, Neut 3364/4233 μL, eGFR 75.4/65.3 mL/min/1.73m²; and TNFi/JAKi-PLT 21.7/29.3 104/μL, Lymph 2112/1326 μL.

Conclusion: Although differences of rates of administering concomitant PSL or MTX should be considered, clinical parameter and laboratory data differences

result from differences in the targeted cytokine between TNFi and IL-6i, differences in patient characteristics between TNFi and ABT, and differences in the MOA between TNFi and JAKi.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2021-eular.2771

AB0132

THE STUDY OF SUBCLINICAL SYNOVITIS DETECTED BY ULTRASONOGRAPHY AND MRI IN RA PATIENTS AFTER REACHING CLINICAL REMISSION ON PATIENT'S SUBJECTIVE SYMPTOMS

M. Nawata^{1,2}, K. Someya^{1,2}, T. Aritomi^{1,2}, M. Funada², K. Nakamura³, S. Kazuyoshi^{1,2}, Y. Tanaka². ¹Tobata General Hospital, Department of Clinical Immunology and Rheumatology, Kitakyushu, Japan; ²School of Medicine, University of Occupational and Environmental Health, Japan, The First Department of Internal Medicine, Kitakyushu, Japan; ³Tobata General Hospital, Department of Radiology, Kitakyushu, Japan

Background: The goal of treatment in rheumatoid arthritis (RA) is to achieve remission. There is the patient with residual symptoms in the Japanese RA patient who achieved clinical remission. There are not many studies to examine the relation between everyday life, social activity and evaluation of disease activities using high-sensitivity image examinations (musculoskeletal ultrasound (MSKUS) and MRI).

Objectives: To examine the relationship between subjective residual symptoms and imaging examinations in RA patients who have achieved clinical remission.

Methods: 30 RA patients who achieved SDAI remission during RA treatment. Age, sex, disease duration, physical findings, serological markers, disease activity, HAQ, EQ-5D-5L, FACIT-F, Patient Reported Outcomes (PROs), EGA and medications were evaluated. 44 joints were assessed by MSKUS with gray scale (GS) and power doppler (PD) and contrast-enhanced bilateral joint MRI scoring with OMERACT-RAMRIS scoring.

Results: 1. The mean SDAI of the 30 RA patients was 1.3. 2. In the analysis of the presence or absence of subjective residual symptoms that led to remission of SDAI (Table 1).

Table 1.

	Subjective residual symptoms/presence (N=17)	Subjective residual symptoms/absence (N=13)	Univariate analysis p value	Multivariate logistic analysis p value
TJC	0.0±0.0	0.3±0.5	0.0173	
HAQ	0.4±0.4	0.05±0.1	0.0095	0.00181
EQ5D-5L	0.8±0.1	0.9±0.0	0.0001	
FACIT-F	14.5±9.8	4.6±4.3	0.0233	
Morning stiffness (min)	256.5±564.8	0.0±0.0	0.0210	
Pain (VAS) (mm)	9.2±9.5	0.9±1.5	0.0044	0.0455
PGA (mm)	7.7±9.0	0.5±1.1	0.0013	

- (1). In the univariate analysis, the number of tender joints, HAQ, EQ-5D-5L, FACIT-F, morning stiffness, and pain VAS were extracted with significant differences.
- (2). In multivariate logistic analysis, HAQ and pain VAS were extracted as independent factors with significant differences. 3. In univariate analysis of the association between HAQ and pain VAS extracted in multivariate logistic analysis and imaging examinations (MSKUS/MRI), MRI-synovitis was extracted with a significant difference in HAQ.

Conclusion: 1. It was suggested that Pain VAS and HAQ due to RA could be identified in patients reaching SDAI remission. 2. In patients reaching SDAI remission, Pain VAS ≤ 10 or HAQ ≤ 0.5 suggested that subjective residual symptoms may be eliminated. 3. HAQ ≤ 0.5 suggests that synovitis is less likely to be detected on MRI. 4. In patients who have reached SDAI remission, little residual inflammation was observed on US, suggesting that induction of remission is important not only to prevent joint destruction, but also to improve and maintain long-term QoL.

Disclosure of Interests: MASAO NAWATA Grant/research support from: I have received research funding from Eli Lilly Japan K.K., Kazuki Someya: None declared, Takafumi Aritomi: None declared, Masashi Funada: None declared, Katsumi Nakamura: None declared, SAITO KAZUYOSHI Grant/research support from: I have received research funding from Eli Lilly Japan K.K., Yoshiya Tanaka Speakers bureau: I have received speaking fees from Abbvie, Daiichi-Sankyo, Chugai, Takeda, Mitsubishi-Tanabe, Bristol-Myers, Astellas, Eisai, Janssen, Pfizer, Asahi-kasei, Eli Lilly, GlaxoSmithKline, UCB, Teijin, MSD, and Santen, Consultant of: I have received consulting fees from Abbvie, Daiichi-Sankyo, Chugai, Takeda, Mitsubishi-Tanabe, Bristol-Myers, Astellas, Eisai, Janssen, Pfizer, Asahi-kasei, Eli Lilly, GlaxoSmithKline, UCB, Teijin, MSD, and Santen, Grant/research support from: I have received research grants from Mitsubishi-Tanabe, Takeda, Chugai, Astellas, Eisai, Taisho-Toyama, Kyowa-Kirin, Abbvie, and Bristol-Myers

DOI: 10.1136/annrheumdis-2021-eular.2830