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AB0267 BASELINE PREDICTORS OF RESPONSE TO METHOTREXATE IN EARLY RHEUMATOID ARTHRITIS

S. Rizvi, M. Bukhari. *Rheumatology, Royal Lancaster Infirmary, Lancaster, UK*

Background: The disease activity score (DAS28) is widely used to assess response to treatment in early rheumatoid arthritis. Few studies have looked at the individual components of the DAS at baseline to predict drop in DAS28 in early disease. Specifically at 3, 6 and 12 months. Predicting response early in disease would enable more targeted treatments to be given and patients selected early for more aggressive disease control. Although certain biomarkers have been advocated for use and have shown some promise.^{1,2} there is still a place for exploring using more clinically derived indicators.

Objectives: To determine whether DAS28 response at 3, 6 and 12 months could be predicted by baseline components of the DAS28

Methods: The study used patients from the multicentre UK based RAMS study. All patients with early rheumatoid arthritis starting methotrexate were enrolled. We used data from a single centre in the North west of England for the analysis. DAS28 and its components were recorded at baseline and at 3, 6 and 12 months. Baseline components of the DAS28 were used to predict the change in DAS from baseline to 3, 6 and 12 months. Linear regression was used with subsequent adjustment for age and gender.

Results: 120 patients were enrolled in the study, median age was 62.4 years (IQR42.1, 72.5), 81 (67%) were female. Median DAS28 at baseline was 5.3 (IQR 4.2,6.2). Duration of symptoms was 9 months (IQR 2,11). There was a drop of DAS28 of 1.49 at 3 months (IQR 0.57,2.45) and at 6 and 12 months it was 1.84 (IQR 0.48,2.91) and 1.63 (IQR 0.72,2.85) respectively. At three months the only baseline predictor of change in DAS28 was the patient global assessment unadjusted and adjusted for age adjusted beta 0.012 95% CI 0.002, 0.023 (p=0.02). At six months the baseline tender joint count adjusted beta 0.08 95% CI 0.015, 0.154 (p=0.01) as well as swollen joint count adjusted beta 0.05 95% CI 0.004,0.095 (p=0.02) also predicted response in addition to the patients global assessment adjusted beta 0.016 95% CI 0.002, 0.03 (p=0.01), but not the ESR or CRP at baseline (p=NS). At 12 months the only predictors of response was the baseline CRP adjusted beta 0.02 95% CI 0.005, 0.04(p=0.02).

Conclusions: In this cohort of patients with early disease, response to methotrexate could not be reliably predicted using baseline measures and the ability to predict patients who would improve could not be found in this cohort. Further work on other clinical biomarkers to predict response is needed.

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AB0268 HOW DO PATIENTS WITH RHEUMATOID ARTHRITIS EVALUATE THEIR GLOBAL ASSESSMENT?

M. Kojima¹, T. Kojima². ¹Medical Education, Nagoya City University Graduate School of Medical Sciences; ²Orthopedic Surgery, Nagoya University Hospital, Nagoya, Japan

Background: The importance of patient-reported outcomes (PRO) has been recently recognised. Patient global assessment (PtGA) is one of the most popular PROs in rheumatology. However, the validity of PtGA as a tool for assessment of disease activity and its relevance compared with other tools is still debated.¹ Patients' perspective is essential to achieve treat-to-target. The significance of measuring PtGA in clinical practice should be verified. We previously found that Japanese rheumatologists changed their strategy to ask patient global assessment (PtGA) according to the patients' understanding ability. It is unknown how patients themselves feel PtGA.

Objectives: To investigate how patients with rheumatoid arthritis (RA) evaluate and accept PtGA as assessment tool of RA activity.

Methods: During the period of ,^{August and September, 2016} a 90 min focus group was held four times. Nine or 10 RA patients participated in each focus group. Totally, 34 women and 4 men, average age 56.1±10.9 years old, and disease history 9.39±9.36 years joined the study. The participants freely discussed how to evaluate their conditions of rheumatism and therapeutic effect. We used the "Steps for Coding and Theorization" (SCAT)²⁻³ to analyse the focus group data.

Results: Patients determined their PtGA based on pain, swelling, inconvenience of daily life, the mood of the day, comprehensively, although they felt confusing

because the criteria of how to evaluate PtGA was unclear. Most patients set 100 of PtGA as "when most painful after onset", while standard of 0 was varied. Many patients had experienced a discrepancy between PtGA and CRP that their doctors denied. Patients were eager that their doctor would understand the discordance between PtGA and laboratory data and ask the patients "what's wrong with you?"

Conclusions: Doctors and patients should discuss how to evaluate PtGA at the start of treatment to avoid patients' confusing. By utilising PtGA as a communication tool, relationship between doctor and patients would be facilitated.

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AB0269 ANKLE SYNOVITIS AND TREAT-TO-TARGET STRATEGY IN CLINICALLY AND SEROLOGICALLY DIFFERENT FORMS OF RHEUMATOID ARTHRITIS, A SINGLE-CENTRE EXPERIENCE

M. Kedves¹, J. Gál¹, K. Töröcsik¹, D. Balaton¹, J. Csitos¹, N. Megyes¹, G. Nagy². ¹Rheumatology, Bacs-Kiskun County Hospital, Kecskemét; ²Rheumatology, Semmelweis University, Budapest, Hungary

Background: DAS28 based treat-to-target (T2T) strategy¹ was shown to improve outcomes in patients with rheumatoid arthritis (RA). Although previous studies have shown that approximately 1/3 of RA patients have foot symptoms², ankle and foot joints are not included in DAS28.

Objectives: To study the prevalence of ankle synovitis in clinically and serologically different forms of RA, treated according to the updated T2T strategy.

Methods: 1109 patients, with RA, treated according to the T2T approach were included in this study. Concurrent tenderness and swelling of the ankle joint were considered as synovitis. Rheumatoid factor (RF) and anti-mutated citrullinated vimentin (anti-MCV) positive and negative patients with different disease activity were evaluated.

Results: 8.47% (94) patients had high (DAS28 >5.1); 35.25% (391) moderate (DAS28 ≤5.1; >3.2) and 18.66% (207) low (DAS28 ≤3.2; >2.6) disease activity. 37.6% (417) of patients were in clinical remission (DAS28 <2.6). 60.71%¹⁷ of anti-MCV and RF positive and 44.8%¹³ of anti-MCV and RF negative patients with high disease activity had ankle synovitis (table 1). Regarding patients in remission, 13.7%¹⁸ of anti-MCV and RF positive and 15%¹⁸ of anti-MCV and RF negative patients had ankle synovitis (table 2). Interestingly, ankle synovitis was considerably more common than knee synovitis in all patient groups.

Abstract AB0269 – Table 1. Ankle and knee involvement in high disease activity

	DAS28>5.1, 94 patients in total	DAS28>5.1. RF pos., anti-MCV pos: 28 patients	DAS28>5.1. RF neg, anti-MCV neg: 29 patients
Right knee synovitis	21,27%	25%	24,13%
Left knee synovitis	19,14%	25%	10,31%
Both knees synovitis	4,25%	10,71%	0
% of patients with knee involvement	36,17%	39,28%	34,48%
Right ankle synovitis	31,91%	28,57%	34,48%
Left ankle synovitis	37,23%	42,85%	44,82%
Both ankles synovitis	13,82%	10,71%	34,48%
% of patients with ankle involvement	55,31%	60,71%	44,82%

Abstract AB0269 – Table 2. Ankle and knee involvement in remission

	DAS28<2.6. 417 patients in total	DAS28<2.6. RF pos, anti- MCV pos: 131 patients	DAS28<2.6. RF neg, anti- MCV neg: 120 patients
Right knee synovitis	1,43%	2,29%	0
Left knee synovitis	0,95%	1,52%	0
Both knees synovitis	0	0	0
% of patients with knee involvement	2,39%	3,87%	0
Right ankle synovitis	6,71%	6,87%	6,66%
Left ankle synovitis	7,19%	7,63%	8,33%
Both ankles synovitis	0,23%	0,76%	0
% of patients with ankle involvement	13,66%	13,74%	15%

Conclusions: Our present data show that ankle synovitis is rather common in patients with serologically and clinically different forms of RA and highlight the importance of careful medical examination, even in case of clinical remission.

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AB0270 TREATMENT RESPONSE TO RITUXIMAB IN COMBINATION WITH LEFLUNOMIDE IS INFLUENCED BY ANTICCP STATUS IN ACTIVE RHEUMATOID ARTHRITIS: RESULTS FROM A MULTICENTER RANDOMISED PLACEBO-CONTROLLED INVESTIGATOR INITIATED CLINICAL TRIAL IN ACTIVE RHEUMATOID ARTHRITIS (AMARA-STUDY)

M. Köhm^{1,2}, T. Rossmann², R. Alten³, M. Aringer⁴, M. Backhaus⁵, G. Burmester⁶, E. Feist⁶, E. Herrmann⁷, H. Kellner⁸, A. Lehn⁷, U. Müller-Ladner⁹, A. Rubbert-Roth¹⁰, H.-P. Tony¹¹, S. Wassenberg¹², H. Burkhardt^{1,2}, F. Behrens^{1,2}, on behalf of AMARA-Study Group. ¹Rheumatology, Goethe-University Frankfurt/Main; ²Clinical Research, Fraunhofer IME TMP, Frankfurt/Main; ³Rheumatology, Schloss-Parklinik, Berlin; ⁴Medical Clinic and Outpatient Clinic III, University Clinic, Dresden; ⁵Park-Klinik Weissensee; ⁶Rheumatology and Immunology, Universitätsmedizin Charité, Berlin; ⁷Biostatistics and Mathematic Modeling, Goethe-University Frankfurt/Main, Frankfurt/Main; ⁸Praxis für Rheumatologie, München; ⁹Department of Rheumatology and Clinical Immunology, Kerckhoff-Klinik, Bad Nauheim, Germany; ¹⁰Rheumatology, Klinikum St. Gallen, St. Gallen, Switzerland; ¹¹Department of Rheumatology/Immunology, University of Würzburg, Würzburg; ¹²Evangelisches Fachkrankenhaus, Ratingen, Germany

Background: Use of biologicals such as Rituximab (RTX) in Rheumatoid Arthritis (RA) is effective and often only licensed in combination with Methotrexate (MTX). In cases of contraindications to or intolerances, other cDMARDs are frequently used in routine care without data from RCTs. Patients with positive antiCCP-status were identified in previous studies to better respond to RTX in combination with MTX.

Objectives: Here we present for the first-time data of the impact of antiCCP status on ACR response in the combinational therapy of RTX and Leflunomide (LEF).

Methods: A total of 189 patients with active RA (DAS28 >3.2 and at least 3 SJC and 3 TJC) despite stable LEF treatment were screened for a 52 weeks double-blind placebo controlled multicenter RCT. Patients were randomised to receive either two times 1000 mg RTX i.v. or PLA, followed by a second course of RTX of either two times 500 or 1000 mg at week 24. The primary endpoint of the study was superiority of RTX in ACR20 and 50 responses during 24 weeks treatment period. Adult patients who had inadequate response to more than one antiTNF or failed more than three cDMARDs were excluded. Disease activity was measured at each visit and compared according to antiCCP status. For safety evaluation, frequency and severity of adverse events were documented.

Results: Of 189 screened patients 148 were randomised. The mean age was 56 years; the mean body weight 76 kg and 74% were female. The disease activity (DAS28) at baseline was 5.57 for RTX and 5.54 for PLA. 57.1% of the patients were antiCCP-positive for RTX compared to 59.6% for PLA. In the RTX group, antiCCP-positive patients' disease duration was 8.8 years compared to 5.6 years in the antiCCP-negative group, DAS28 was 5.73 vs. 5.32 and CRP levels were

11.1 mg/L vs. 5.3 mg/L. RTX demonstrated significant superiority compared to PLA at week 16 in both, ACR 20 and ACR 50 response. AntiCCP-positive patients showed a higher probability to respond to the RTX/LEF treatment than antiCCP-negative patients (figure 1). 43 serious adverse events were reported, 27 of them in the RTX treatment group during the placebo-controlled period.

Abstract AB0270 – Figure 1

Conclusions: Here we report data of the first RCT investigating the combination of RTX with LEF in RA. The treatment with RTX in combination with LEF demonstrated significant efficacy compared to PLA for ACR20 and 50 responses with highest response level at week 16. AntiCCP-positive patients showed a higher probability for treatment response compared to antiCCP-negative ones. The combination of RTX and LEF demonstrated a reasonable safety profile.

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AB0271 RS12218 POLYMORPHISM IN SAA1 GENE IN THE RUSSIAN POPULATION OF RA PATIENTS IS ASSOCIATED WITH SECONDARY AMYLOIDOSIS. A PILOT STUDY

M. Krylov¹, Y. Muraviev¹, A. Alekseeva¹, E. Samarkina¹, I. Guseva¹, N. Konovalova², D. Varlamov². ¹V.A. Nasonova Research Institute of Rheumatology, ²All-Russian Research Institute of Agricultural Biotechnology, Moscow, Russian Federation

Background: Secondary amyloidosis (SA) is a serious complication of rheumatoid arthritis (RA), which is often fatal. Identification of associated risk factors, including genetic ones, is an important task.

Objectives: To assess the role of SAA1 gene polymorphism, encoding serum amyloid-A, as a risk factor predisposing to SA in the sample of Russian RA patients.

Methods: The study included 60 patients with RA, fulfilled the American College of rheumatology criteria (ACR) 1987. Of these 35 (mean age 49.5±10.8 y, mean disease duration 18.5±8.9) developed SA manifestations, confirmed histologically: group SA (+). 25 patients (mean age 56.7±11.7 y, mean disease duration 16.3±7.5 y) did not have either clinical or histological SA signs: group SA (-). The control group (C) consisted of 65 healthy employees. SAA1 gene polymorphism rs12218 (-13 T/C), mapped in the 5' flanking region of the gene, was studied in 125 subjects by polymerase chain reaction in real time (RT-PCR) with subsequent melting curves analysis.

Results: Statistically significant differences in the rates of TT, TC and CC genotypes of rs12218 polymorphism were established between SA(+) group and the controls (17.1%, 64.0%, 48.6% and 38.5%, 46.1%, 15.4%, respectively, p=0.029). High rate (58.6%) of the mutant C allele in SA(+) group compared to the control group (38.5%) predetermines high risk of susceptibility to SA in RA patients [(OR 2.26, 95% CI(1.20–4.28), p=0.010]. Significant differences in rs12218 polymorphism rates were found between SA(+) and SA(-) groups [p<0.001]. The frequency of TC + CC genotype was significantly higher in the SA (+) group compared to SA(-) group [82.9% vs 36.0%, p<0.001]. The risk of predisposition to SA development among RA patients was increased when C allele frequencies in the group with SA (58.6%) were compared with the group without SA (22.0%) [OR 5.01, 95% CI (2.07–12.58), p<0.001]. No significant differences were found in the frequencies of genotypes and rs12218 alleles between SA(-) pts and the controls (p>0.05).