statistically significant difference was found for the rest of parameters of lipids or inflammation markers.

Conclusion: IMT measurement confirmed that patients with RA are at a higher risk of developing early atherosclerosis. The results of this study demonstrate an improvement of cardiovascular risk in RA patients treated with biological DMARDs via an increase in HDL-c and ApoA1 levels and a reduction of ESR and blood pressure measurements even from the first 3 months of treatment initiation. Long term studies are needed to determine the impact of biological agents on cardiovascular risk in RA.

Acknowledgement: N/A

Disclosure of Interests:

None declared

DOI: 10.1136/annrheumdis-2019-eular.5520

THU0133 TENDERNESS CAN BE REGARDED AS A SIGN OF INFLAMMATION IN RHEUMATOID ARTHRITIS

Irina Gessl¹, Mihaela Popescu², Victoria Schimpl¹, Gabriela Supp¹, Michael Zauner¹, Michaela Loiskandl¹, Martina Durechova¹, Josef S. Smolen¹, Daniel Aletaha¹, Peter Mandl¹. ¹Medical University of Vienna, Department of Medicine III, Division of Rheumatology, Vienna, Austria; ²Université de Montréal, Montreal, Canada

Background: In inflammatory joint diseases, joint swelling is regarded as a sign of inflammation, which is associated with structural progression [1-3]. However, the significance of tenderness without swelling is unclear.

Objectives: To determine whether clinical tenderness can be considered a sign of inflammatory joint activity in patients with rheumatoid arthritis (RA), osteoarthritis (OA), or psoriatic arthritis (PsA)

Methods: 36/24/30 patients respectively with RA, OA and PsA were included in the study. Each patient underwent clinical examination, followed by an ultrasound examination of bilateral MCP 1-5 (metacarpophalangeal), PIP 1-5 (proximal interphalangeal) joint and wrists; the sonographer was blinded to clinical data. On clinical examination synovial swelling and tenderness were evaluated using a binary scoring method, and tender, non-swollen joints (TNS) were identified. Grey-scale signs of synovitis (GS) and Power Doppler signal (PD) were evaluated using a semiquantitative grading system.

Differences of PD signals between groups (RA vs. OA, RA vs. PsA, TNS vs. non-tender non-swollen joints) were calculated by Chi-Square test. Furthermore, joints of RA and PsA patients were tracked back for up to 6 years to identify the time point of the last swelling of that respective joint. Kaplan-Meier estimates for the occurrence of the last time point of swelling were compared between PD positive and PD negative TNS joints.

Results: TNS joints more often showed PD signal in RA patients as compared to those with OA and PsA (18.7% vs. 11.5% vs. 9.2%, respectively, $p=0.135$ for RA vs. OA; $p<0.01$ for RA vs. PsA). TNS joints were significantly more often PD positive as compared to non-tender non-swollen joints (18.7% vs. 10.3% respectively, $p<0.01$) in RA, but not in PsA (9.2% vs. 7.6%, $p=0.54$) or OA (11.5% vs. 10.2%, $p=0.72$) (fig. 1). Kaplan-Meier analysis revealed a significantly shorter time period to last observed swelling in PD positive as opposed to PD negative TNS joints in both RA (45.2 vs. 65.5 months, $p=0.017$) and PsA (20.6 months vs. 107.7 months, $p<0.001$), however we found no difference in GS positive vs. negative TNS joints.

Conclusion: The results of this study confirm the current practice of considering tenderness a sign of active inflammation in RA, but imply that this may not be the case in PsA or OA. The fact that shorter time to last swelling was associated with positive PD in TNS joints suggests that, at least in RA, tenderness might reside after prior clinical swelling has resolved.

REFERENCES:

- [1] Conaghan PG, et al. *Arthritis Rheum* 2003; 48: 64-71.
- [2] Aletaha D, et al. *Ann Rheum Dis* 2011; 70: 1975-1980.
- [3] Aletaha D, et al. *Arthritis Rheum* 2011; 63: 3702-3711.

Abstract THU0133 – Figure 1. Power Doppler signals of tender non-swollen joints compared to non-tender non-swollen joints in rheumatoid arthritis (RA), psoriatic arthritis (PsA) and osteoarthritis (OA).

Disclosure of Interests: Irina Gessl Grant/research support from: Travel Grant, Mihaela Popescu: None declared, Victoria Schimpl: None declared, Gabriela Supp: None declared, Michael Zauner: None declared, Michaela Loiskandl: None declared, Martina Durechova: None declared, Josef S. Smolen Grant/research support from: AbbVie, Eli Lilly, Janssen, MSD, Pfizer, Roche, Consultant for: AbbVie, Amgen, Astra-Zeneca, Astro, Celgene Corporation, Celtrion, Eli Lilly, Glaxo, ILTOO, Janssen, MedImmune, MSD, Novartis, Pfizer, Roche, Samsun, Sanofi, UDB, Speakers bureau: AbbVie, Amgen, Astra-Zeneca, Astro, Celgene Corporation, Celtrion, Eli Lilly, Glaxo, ILTOO, Janssen, MedImmune, MSD, Novartis, Pfizer, Roche, Samsun, Sanofi, UDB, Daniel Aletaha Grant/research support from: AbbVie, Bristol-Myers Squibb, and MSD, Consultant for: AbbVie, Bristol-Myers Squibb, Eli Lilly, Janssen, Medac, Merck, MSD, Pfizer Inc, Roche, and UCB, Speakers bureau: AbbVie, Bristol-Myers Squibb, Eli Lilly, Janssen, Medac, Merck, MSD, Pfizer Inc, Roche, and UCB, Peter Mandl: None declared

DOI: 10.1136/annrheumdis-2019-eular.7640

THU0134 COMORBIDITIES IN >5000 PATIENTS WITH RHEUMATOID ARTHRITIS INITIATING TREATMENT WITH METHOTREXATE IN ROUTINE CARE: PREVALENCE AND IMPACT ON TREATMENT OUTCOMES. AN OBSERVATIONAL COHORT STUDY FROM DANBIO

Bente Glinborg¹, Niels Steen Krogh¹, Frank Mehnert², Merete L. Hetland¹. ¹The DANBIO registry and the Danish Departments of Rheumatology, Copenhagen, Denmark; ²Department of Clinical Epidemiology, Aarhus University Hospital, Aarhus, Denmark

Background: Methotrexate remains the anchoring drug for the treatment of rheumatoid arthritis (RA). Patients with RA often have comorbidities e. g. diabetes or pulmonary disease. Although methotrexate has been used for decades, little is known about the impact of various comorbidities on treatment outcomes.

Objectives: To describe the prevalence of comorbidities in csDMARD naïve RA patients initiating treatment with methotrexate in routine care and to explore the impact of common comorbidities on methotrexate treatment outcomes (achieving remission and adherence to treatment).

Methods: Observational cohort study based on the Danish nationwide quality registry, DANBIO. Adult RA patients who started treatment with methotrexate (oral or injection) as first csDMARD year 2010-2017 and who had been followed since onset of disease with regular controls were included. Concomitant treatment with other DMARDs were allowed. Treatment outcomes after ~ 6 months of treatment were identified in DANBIO. Data were censored by April 2018. Seven different comorbidities (Figure) prior to start of methotrexate were identified in the national patient registry (NPR) through linkage by social security numbers.

Impact of each comorbidity was explored as 1) overall methotrexate treatment retention rate and 2) DAS28 remission rate (after 6 months' treatment). Analyses were by Cox- and logistic-regression analyses (adjusted for gender and age). The comorbidities were included one by one in the models. Finally, similar analyses were performed summed for all the seven comorbidities as any comorbidity yes/no.

Results: 5828 patients were included (66% female, median age 61 (IQR 51-70) years), whereof 906 (15.5%) had ≥1 of the predefined

comorbidities (63% female, median age 68 (60-74) years). Only 70 patients (1.4%) had ≥ 2 comorbidities.

Patients with comorbidities had increased withdrawal rate of methotrexate with hazard ratios ranging from 1.10-2.06 (Figure). Similarly, patients with comorbidities had poorer remission rate with odds ratios ranging from 0.38-0.74 except for previous cancer.

Conclusion: In this nationwide cohort of >5000 RA patients treated with methotrexate in routine care, approximately 15% of patients had comorbidities at treatment start. Patients with comorbidities had higher rate of withdrawal and poorer remission rates. This warrants specific attention when treating these patient groups in routine care.

Acknowledgement: Thank you for the Danish departments of Rheumatology for reporting to DANBIO

Figure. Comorbidities in RA and impact on methotrexate withdrawal and DAS28 remission (6 months)

Time interval for identifying comorbidities (ambulatory or hospitalized): Malignancy: 0-ever, other comorbidities: 0-5 years previously
Prevalence of comorbidities: Malignancy 8.8%, Infection 7.1%, Prosthesis 4.7%, Pulmonary disease 3.3%, Diabetes 4.8%, Myocardial infarction: 1.6%, Kidney disease: 1.0%, Any comorbidity: yes: 15.5%
All analyses are reported with 'no comorbidity' as reference group.
Abbreviations: CI: confidence interval, DAS28: disease activity score based on 28 joints, RA: rheumatoid arthritis, csDMARD: conventional synthetic disease modifying drug

Abstract THU0134 – Figure 1

Disclosure of Interests: Bente Glinborg Grant/research support from: Biogen, Pfizer, AbbVie, Niels Steen Krogh: None declared, Frank Mehnert: None declared, Merete L. Hetland Grant/research support from: BMS, MSD, AbbVie, Roche, Novartis, Biogen, Pfizer, Consultant for: Eli Lilly, Speakers bureau: Orion Pharma, Biogen, Pfizer, CellTrion, Merck, Samsung Bioepis

DOI: 10.1136/annrheumdis-2019-eular.4023

THU0135

DETERMINANTS OF DISCORDANCE IN PATIENT'S AND PHYSICIAN'S GLOBAL ASSESSMENTS OF DISEASE ACTIVITY OF RHEUMATOID ARTHRITIS IN THE "REAL" STUDY – BRAZIL

Maria Fernanda Guimarães¹, Maria Raquel Pinto¹, Gustavo Resende¹, Carla Machado², Ana Beatriz Vargas-Santos³, Cleandro Albuquerque⁴, Manoel Bertolo⁵, Paulo Louzada Jr⁶, Rina Giorgi⁷, Sebastião Radominski⁸, Karina Bonfiglioli⁹, Maria de Fátima Sauma¹⁰, Ivanio Pereira¹¹, Claiton Brenol¹², Licia Mota¹³, Geraldo Castelar-Pinho¹⁴. ¹Hospital das Clínicas da Universidade Federal de Minas Gerais, Belo Horizonte, Brazil; ²Faculdade de Medicina da Universidade Federal de Minas Gerais, Belo Horizonte, Brazil; ³Hospital Universitário Pedro Ernesto – Universidade do Estado do Rio de Janeiro, Rio de Janeiro, Brazil; ⁴Hospital Universitário – Universidade de Brasília, Brasília, Brazil; ⁵Faculdade de Ciências Médicas – Universidade Estadual de Campinas, Campinas, Brazil; ⁶Faculdade de Medicina da USP Ribeirão Preto, Ribeirão Preto, Brazil; ⁷Hospital do Servidor Público Estadual de São Paulo, São Paulo, Brazil; ⁸Faculdade de Medicina da Universidade Federal do Paraná, Curitiba, Brazil; ⁹Faculdade de Medicina – Universidade de São Paulo, São Paulo, Brazil; ¹⁰Faculdade de Medicina – Universidade Federal do Pará, Belém, Brazil; ¹¹Hospital Universitário – Universidade Federal de Santa Catarina, Florianópolis, Brazil; ¹²Universidade Federal do Rio Grande do Sul, Porto Alegre, Brazil; ¹³Faculdade de Medicina – Universidade de Brasília, Brasília, Brazil; ¹⁴Universidade do Estado do Rio de Janeiro, Rio de Janeiro, Brazil

Background: Discordance between the patient's global assessment of disease activity (PGA) and examiner's global assessment (EGA) has been described in rheumatoid arthritis (RA) (1,2). Understanding the reasons for this discrepancy is essential in the context of treat-to-target treatment strategy.

Objectives: To assess the determinants of PGA and EGA and factors associated with discordance between them.

Methods: The REAL study included RA patients from Brazilian public health centers. Clinical, laboratory and outcomes measures were collected. PGA and EGA were rated on a visual analog scale and analyzed. Three groups were defined: no discordance (a difference between PGA and EGA within 3 cm), positive discordance (PGA exceeding EGA by >3 cm), and negative discordance (PGA less than EGA by >3 cm).

Multivariate regression analysis was used to identify determinants of PGA and EGA and their discordance.

Results: 1115 patients (89.4% female, mean age 56.7y and median disease duration of 12.7y) were enrolled. Two factors were associated with PGA in the final multivariate model: one point increase in the pain scale (PS) leads to an increase of 0.62 in PGA; one point increase in HAQ increases by 9.25 points the PGA. The factors associated with EGA were: PS, number of tender and swollen joints (NTJ and NSJ), RF, ESR, HAQ and use of corticosteroids. Discordance between patient and physician was found in 30.52%: positive discordance (PD) in 24.6% and negative discordance (ND) in 5.92%. An increase of one point in the NSJ was associated with a 12% increase in the chance of ND. The chance of PD increased by 90% and 2% for each unit increased in HAQ and PS respectively. Finally, the chance of PD decreased by 3% for each point increased in NTJ and by 15% for each point increased in NSJ.

Conclusion: In one-third of the assessments, there was disagreement between PGA and EGA (a PD in 80% of them). Pain and function were determinants for patients to estimate disease activity, while swollen joints were the main factor related to a worse examiner's evaluation. These data show how different can be the perspectives of patients and assistants.

REFERENCES:

- [1] Smolen JS, Strand V, Koenig AS, Szumski A, Kotak S, Jones TV. Discordance between patient and physician assessments of global disease activity in rheumatoid arthritis and association with work productivity. *Arthritis Res Ther*. 2016; 18:114.
- [2] Desthieux C, Hermet A, Granger B, Fautrel B, Gossec L. Patient-physician discordance in global assessment in rheumatoid arthritis: a systematic literature review with meta-analysis. *Arthritis Care Res (Hoboken)*. 2016; 68:1767.

Disclosure of Interests: Maria Fernanda Guimarães: None declared, Maria Raquel Pinto: None declared, Gustavo Resende Grant/research support from: ABBVIE, PFIZER, Consultant for: ABBVIE, JANSSEN, NOVARTIS, Paid instructor for: Novartis, Janssen, Speakers bureau: ABBVIE, JANSSEN, NOVARTIS, PFIZER, UCB, Carla Machado: None declared, Ana Beatriz Vargas-Santos Grant/research support from: Has received personal fees and/or non-financial support from Pfizer, AbbVie, AstraZeneca, Janssen, Bristol-Myers Squibb, Roche, Novartis and UCB, Cleandro Albuquerque Shareholder of: Has received personal fees and/or non-financial support from Pfizer, AbbVie, AstraZeneca, Janssen, Bristol-Myers Squibb, Roche, Novartis and UCB, Grant/research support from: Has received personal fees and/or non-financial support from Pfizer, AbbVie, AstraZeneca, Janssen, Bristol-Myers Squibb, Roche, Novartis and UCB, Consultant for: Has received personal fees and/or non-financial support from Pfizer, AbbVie, AstraZeneca, Janssen, Bristol-Myers Squibb, Roche, Novartis and UCB, Paid instructor for: Has received personal fees and/or non-financial support from Pfizer, AbbVie, AstraZeneca, Janssen, Bristol-Myers Squibb, Roche, Novartis and UCB, Speakers bureau: Has received personal fees and/or non-financial support from Pfizer, AbbVie, AstraZeneca, Janssen, Bristol-Myers Squibb, Roche, Novartis and UCB, Consultant for: Has received personal fees and/or non-financial support from Pfizer, AbbVie, AstraZeneca, Janssen, Bristol-Myers Squibb, Roche, Novartis and UCB, Manoel Bertolo Speakers bureau: Has delivered speeches at events sponsored by AbbVie and Pfizer, Paulo Louzada Jr Consultant for: Has received consulting fees from Pfizer, Rina Giorgi Consultant for: Has received consulting fees from Roche, Pfizer, Bristol-Myers Squibb, UCB, Eli-Lilly, AbbVie, Abbott and EMS, Speakers bureau: Has received speaking fees from Roche, Pfizer, Bristol-Myers Squibb, UCB, Eli-Lilly, AbbVie, Abbott and EMS, Sebastião Radominski Consultant for: Abbvie, Celgene, Genentech/Roche, Janssen, Pfizer, UCB, Speakers bureau: Abbvie, Celgene, Genentech/Roche, Janssen, Pfizer, UCB, Karina Bonfiglioli Speakers bureau: Has received speaking fees from Roche, Pfizer, Bristol-Myers Squibb, Abbvie and Janssen., Maria de Fátima Sauma: None declared, Ivanio Pereira Consultant for: Has received consulting fees from Roche, Pfizer, UCB Pharma, Eli-Lilly, Abbvie and Janssen, Speakers bureau: Has received speaking fees Roche, Pfizer, UCB Pharma, Eli-Lilly, Abbvie and Janssen, Claiton Brenol Shareholder of: Has participated in clinical and/or experimental studies related to this work and sponsored by AbbVie, BMS, Janssen, Pfizer and Roche; has received personal or institutional support from AbbVie, BMS, Janssen, Pfizer and Roche; has delivered speeches at events related to this work and sponsored by AbbVie, Janssen, Pfizer and Roche, Grant/research support from: Has participated in clinical and/or experimental studies related to this work and sponsored by AbbVie, BMS, Janssen, Pfizer and Roche; has received personal or institutional support from AbbVie, BMS, Janssen, Pfizer and Roche; has delivered speeches at events related to this work and sponsored by AbbVie, Janssen, Pfizer and Roche, Consultant for: Has participated in