function were more controversial and available data did not argue for a direct vascular effect of MTX in RA.

In psoriatic arthritis, evidences were more scarce. A meta-analysis showed that methotrexate was associated with a reduction of cardiovascular events in patients with psoriatic arthritis. In psoriatic arthritis, methotrexate did not improve the endothelial function.

In plaque psoriasis, available data were rare. The use of methotrexate in this condition was not associated with a reduction of cardiovascular events. Nevertheless, a decrease in circulating VCAM-1 and in E selectin levels was described with the use of methotrexate.

In HIV infection, a model of pro inflammatory state, the use of methotrexate did not change the endothelial function and thus the cardiovascular events.

Finally, in general population, the use of methotrexate did not decrease the occurrence of cardiovascular events after a myocardial infarction.

Conclusion: The cardiovascular effects of methotrexate are poorly understood at this time. Nevertheless, it seems clear that methotrexate can reduce the occurrence of cardiovascular events in inflammatory disease. The mechanisms explaining this good issue are poorly understood, but it seems possible that the essential effect of methotrexate lies in the reduction of the inflammatory syndrome without a direct vascular impact.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2021-eular.2694

AB0267

HOW EFFECTIVE IS PAIN MANAGEMENT IN THE PATIENTS' OPINION? DATA FROM THE COMPAS STUDY

E. Pogozheva¹, A. Karateev¹, V. Amirdzhanova¹, ¹V.A. Nasonova Research Institute, Pain Management, Moscow, Russian Federation

Objectives: to evaluate the effectiveness and satisfaction of pain management in patients with rheumatic diseases (RD) according to a survey in the COMPAS (Quality of Pain Management according to Patients with Arthritis and Back pain) study.

Methods: the survey involved 1040 patients with RD (rheumatoid arthritis-40.6%, osteoarthritis -32.1%, spondyloarthritis-10.6%, connective tissue diseases-8.6% of patients). 76.8% were women, the mean age was 55.8±14.0 years. 35.7% of patients continued to work in their specialty, 31.6% had various degrees of disability. The effectiveness of pain therapy was evaluated by the patient in the last month preceding the survey on a 5-point scale, where 1 - no effect and 5-excellent effect. Patients' satisfaction with treatment, possible reasons for the lack of effectiveness of pain therapy and the use of additional treatment tools were also evaluated.

Results: as therapy for the underlying disease, 40% of patients received conventional disease modifying antirheumatic drugs, 33.1% - glucocorticoids, 7.2% - biological agents and 15.2% - symptomatic slow-acting drugs in osteoarthritis. At the same time, 68% of patients needed additional analgesic therapy with nonsteroidal anti-inflammatory drugs (NSAIDs). Slightly less than half of the surveyed patients (46.9%) noted a moderate effect of analgesic therapy, 22.7% - a low effect and 5% - no effect, 23.7% rated the effectiveness of therapy as good and only 1.7% - as excellent. At the same time, only 15.6% of patients were completely satisfied with the result of NSAIDs, 64% were partially satisfied with the treatment and 20.4% were completely dissatisfied. As the reason of insufficient effectiveness of NSAIDs, most often (34.3%) patients named fear of adverse events associated with taking drugs, 19.4% - weak drugs, 15.3% - insufficient attention of doctors to complaints, 6.6% - poor diagnosis of the causes of pain. Others found it difficult to answer or were completely satisfied with the treatment. 40% of patients used additional methods, most often chiropractic (12.3%), acupuncture (4.8%), physiotherapy (12.7%) and folk remedies (7.4%).

Conclusion: A significant proportion of patients with RD don't have adequate pain control. Only 25.4% of patients rate the result of treatment as good and excellent, and even fewer patients (15.6%) are completely satisfied with the results of therapy. Thus, a personalized approach to analgesic therapy is necessary, taking into account the expectations of patients regarding the results of treatment.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2021-eular.2806

AB0268

LOW DOSE TACROLIMUS IS AN EFFECTIVE ADD ON THERAPY FOR PATIENTS WITH ACTIVE RHEUMATOID ARTHRITIS - A SINGLE CENTRE EXPERIENCE

N. Prabu¹, V. Petciappan², G. Anand¹, T. A³, A. Nijish³, ¹Sakthi Rheumatology Centre Pvt. Ltd, Rheumatology, Coimbatore, India; ²PSG Institute of Medical

Sciences & Research, General Medicine, Coimbatore, India; ³PSG College of Pharmacy, Pharmacy Practice, Coimbatore, India

Background: Rheumatoid arthritis (RA) a chronic inflammatory arthritis requiring tight control of disease activity. While traditional DMARDs have been used effectively, there always remains a need for add on drugs in good number of patients. Tacrolimus since its first approval in 2004 had been used widely as monotherapy and in combination with conventional and biological DMARDs. The primary concern was safety followed by the efficacy for patients with active disease.

Objectives: The main objective was to ascertain the safety and tolerability of patients who were treated with tacrolimus as an add on therapy over and above the standard care in RA.

Methods: A retrospective analysis of patients who were prescribed Tacrolimus from January 2019 to August 2020 was done. Details of patients along with the change in Blood pressure(BP), Serum creatinine, Blood sugar and Clinical disease activity index(CDAI) before and after tacrolimus were analyzed.

Results: A total of 245 patients with active Rheumatoid arthritis received the drug. The mean age was 48.58(1.49) years and the disease duration was 5.9(0.56) years. Of 245 patients, 24 patients were lost to follow up, 103 patients stopped the drug for various reasons and 118 patients are still continuing the drug. The mean tacrolimus dose was 1.24±0.46 mg in the patients who are continuing. The commonest reason for stopping the drug was adverse events (57%) followed by lack of efficacy(29%), low disease activity (8%) and others(7%). There was no significant change in the mean blood pressure, Blood sugars and Creatinine levels in both the stopped and continuing group. However the CDAI and the steroid dosages reduced significantly in the patients who are still on tacrolimus. The lost to follow up group had high disease activity at baseline and also were on higher doses of steroids.

PARAM ETERS	RA – CONTINUING(118)			RA STOPPED(103)			LOST TO FOLLOWUP (24)
	BEFORE TAC	AFTER TAC	p value	BEFORE TAC	AFTER TAC	P value	BEFORE TAC
SBP mm of hg	100.44(9.54)	101.06(9.80)	0.67	103(9.77)	104(9.92)	0.44	127.35(10.05)
DBP mm of hg	66.30(6.26)	67.22(6.37)	0.30	68.44(6.4)	70.43(6.65)	0.07	82.83(5.05)
SUGAR mg	76.43(13.73)	76.67(11.24)	0.95	71.86(10.79)	76.74(14.1)	0.08	89.12(9.7)
S.CR mg	0.55(0.06)	0.56(0.09)	0.80	0.66(0.16)	0.57(0.06)	0.21	0.74(0.06)
STEROID USE mg	2.82(0.41)	1.65(0.54)	<0.001	2.12(0.43)	2.43(0.54)	0.36	2.86(1.42)
CDAI	12.28(1.84)	7.42(1.49)	<0.001	12.23(2.03)	10.49(2.69)	0.07	16.62(3.88)

Conclusion: Low dose Tacrolimus is an effective add on therapy for patients with high disease activity and did not lead to change in serum creatinine, blood pressure or change in blood sugars in the study subjects.

REFERENCES:

- [1] Yocum D et al. Safety of tacrolimus in patients with rheumatoid arthritis: long-term experience. *Rheumatology* 2004; 43:992–999.
- [2] Shouma Dutta, Yasmeen Ahmad. The efficacy and safety of tacrolimus in rheumatoid arthritis. *Therapeutic Advances in Musculoskeletal Disease Ther Adv Musculoskel Dis.* 2011; 3(6) 283–291.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2021-eular.2822

AB0269

ARE INTERFERON-GAMMA RELEASE ASSAYS RELIABLE TO DETECT TUBERCULOSIS INFECTION IN PATIENTS WITH RHEUMATOID ARTHRITIS TREATED WITH JANUS KINASE INHIBITORS?

C. Castellani¹, E. Molteni¹, A. Altobelli¹, C. Garufi¹, S. Mancuso¹, F. R. Spinelli¹, F. Ceccarelli¹, F. Conti¹, R. Scivo¹, ¹Sapienza University of Rome, UOC Reumatologia - Dipartimento di Scienze Cliniche Internistiche, Anestesiologiche e Cardiovascolari, Roma, Italy

Background: The therapeutic armamentarium for patients with rheumatoid arthritis (RA) has recently been enriched with the family of Janus kinase (JAK) inhibitors. Because the risk of reactivation of latent tuberculosis infection (LTBI) following the use of these drugs seems to be similar to that seen with anti-TNF agents, screening for LTBI is recommended in patients with RA before starting

treatment with JAK inhibitors. Interferon(IFN)-gamma release assays (IGRAs) are increasingly used for this purpose. However, JAK inhibitors tend to decrease the levels of IFNs, questioning the reliability of IGRAs during treatment with this novel class of drugs.

Objectives: To compare the performance of the QuantiFERON-TB Gold Plus (QFT-Plus) test with that of QuantiFERON-TB Gold In-tube (QFT-GIT) assay in RA patients before and during treatment with JAK inhibitors.

Methods: A longitudinal, prospective study has been performed in RA patients (ACR/EULAR 2010 criteria) candidates for tofacitinib or baricitinib treatment. All patients underwent QFT-Plus and QFT-GIT at baseline (T0), and after 3 (T3) and 9/12 months (T9/12) of treatment with JAK inhibitors. The agreement of the two tests was calculated at all timepoints. The agreement between IGRAs and tuberculin skin test (TST) or chest radiography at baseline was also determined. Lastly, the variability of QFT-Plus results was assessed during follow-up.

Results: Twenty-nine RA patients (F/M 23/6; median age/IQR 63/15.5 years; median disease duration/IQR 174/216 months) were enrolled: among them, 22 were to start baricitinib (75.9%) and 7 tofacitinib (24.1%). A perfect agreement was found between QFT-Plus and QFT-GIT at all times of observation ($\kappa=1$). At baseline, no agreement was recorded between IGRAs and TST ($\kappa=-0.08$) and between TST and chest radiography ($\kappa=-0.07$), while a low agreement was found between QFT-Plus and chest radiography ($\kappa=0.17$). A variation of 33.3% in the results of the QFT-Plus test was recorded at T3 compared to T0, of 29.4% at T9/12 compared to T0, and of 11.8% at T9/12 compared to T3. The median levels of IFN- γ produced by lymphocytes in response to the mitogen of QFT-Plus decreased after 3 months of treatment (1.59/4.72 IU/ml vs 3.08/7.68 IU/ml at baseline), followed by an increase after 9/12 months (2.25/4.61 IU/ml), but these differences were not significant. No significant change in the median number of circulating lymphocytes such as to explain the variation of the QFT-Plus results after 3 months of JAK inhibitor therapy was documented (1815/690/mm³ vs 2140/750/mm³ at baseline). At baseline, both QFT-Plus and QFT-GIT showed positive results in 5 patients (17.2%), negative in 19 (65.5%), and indeterminate in 5 (17.2%). Glucocorticoids intake was associated with a higher probability of negative or indeterminate result of IGRAs at baseline ($p<0.0001$).

Conclusion: Our data show that a response to IGRAs is detectable in the course of treatment with JAK inhibitors. However, similarly to what has been observed during treatment with TNF antagonists, the results of QFT-GIT and QFT-Plus show some variability when longitudinally repeated. These fluctuations occur in the absence of correlation with clinical outcome, thus challenging their interpretation. Since we do not have a sufficiently sensitive test capable of detecting TB infection, an integrated evaluation of risk factors, clinical manifestations and multiple diagnostic tests should be considered for a proper evaluation of the risk of TB infection in immunosuppressed patients.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2021-eular.2835

AB0270

EFFECTIVENESS OF A SWITCH FROM TOFACITINIB TO BARICITINIB IN RHEUMATOID ARTHRITIS: A RETROSPECTIVE ANALYSIS OF REAL-WORLD DATA IN SWITZERLAND

S. Kellerhals¹, J. Amsler², H. Schulze-Koops³, T. Hügler⁴, M. J. Nissen⁵, H. Paul⁶, D. Kyburz⁷, R. Müller⁸. ¹Kantonsspital Aarau, Division of Rheumatology, University Department of Medicine, Medical Faculty of the University of Basel, Aarau, Switzerland; ²Inselspital Bern, Rheumatology, Bern, Switzerland; ³Ludwig-Maximilians-University of Munich, Division of Rheumatology and Clinical Immunology, Department of Internal Medicine IV, Munich, Switzerland; ⁴University Lausanne, Division of Rheumatology, University Hospital Lausanne (CHUV), Lausanne, Switzerland; ⁵Geneva University Hospital, Division of Rheumatology, Geneva, Switzerland; ⁶Kantonsspital Aarau, Division of

Rheumatology, University Department of Medicine, Medical Faculty of the University of Basel, Aarau, Switzerland; ⁷University of Basel, Rheumatology, Basel, Switzerland

Background: Janus Kinase Inhibitors (JAKi) have recently been approved for the treatment of rheumatoid arthritis (RA) over the last years. JAKi differ in their specificity for the different JAK family members (JAK1, JAK2, JAK3 and TYK2). All three JAKis that are currently approved in Switzerland seem to have comparable efficacy on different disease stages of RA. Whether a JAKi can be effective after discontinuation of another JAKi is one of the open questions of interest according to the EULAR RA guidelines^[1].

Objectives: To study the effectiveness of baricitinib in patients with RA after discontinuation of tofacitinib.

Methods: Longitudinal, retrospective chart review conducted between October 2019 and December 2020 of patients with RA at two Swiss centers (Kantonsspital Aarau and Inselspital Bern). Disease activity was assessed by DAS 28.

Results: 12 patients (1 male, 11 female) were treated with 4mg baricitinib/d after tofacitinib was discontinued. Mean age of the patients was 61 years, disease duration 140 months. Patients were previously treated with at least two conventional synthetic DMARDs and 75% with at least one biological DMARD. 58% of patients were positive for ACPA, 42% for rheumatoid factor. 50% of the patients suffered from erosive disease. Tofacitinib was stopped in 92% of the patients because of an insufficient response after a mean of 25.8 months. Moderate EULAR response was achieved in 83.3% of the patients after an average of 8 months treatment with baricitinib, and good EULAR response in 58.3% after an average of 10 months. There were no serious adverse events, neoplasms, opportunistic or serious infections during follow-up.

Conclusion: The first retrospective analysis of real-world data of baricitinib following tofacitinib shows that there is a good clinical response in 70% of cases. Although limited by the number of patients this study therefore supports the notion that baricitinib after discontinuation of tofacitinib in RA patients may be an effective therapeutic option.

REFERENCES:

- [1] Smolen JS, Landewé RBM, Bijlsma JWW, et al. EULAR recommendations for the management of rheumatoid arthritis with synthetic and biological disease-modifying antirheumatic drugs: 2019 update. *Annals of the Rheumatic Diseases*. 2020;79(6):685-699. doi:10.1136/annrheumdis-2019-216655, p. 695

Disclosure of Interests: Simon Kellerhals: None declared, Jennifer Amsler: None declared, Hendrik Schulze-Koops: None declared, Thomas Hügler Consultant of: GSK, Abbvie, Pfizer, Jansen, Novartis, Eli Lilly., Michael J. Nissen Consultant of: Abbvie, Celgene, Eli-Lilly, Janssen, Novartis and Pfizer., Hasler paul Consultant of: Abbvie, Lilly, Diego Kyburz Consultant of: Abbvie, Gilead, Lilly, Novartis and Pfizer, outside of the submitted work, Rudiger Müller Consultant of: Abbvie, Novartis, Grant/research support from: Bebro Pharma

DOI: 10.1136/annrheumdis-2021-eular.2872