cardiometabolic comorbidities associated. Some evidence points out that methotrexate could improve CV risk due to its anti-inflammatory properties, however the effect of PDE4 inhibitor treatment on CV risk have not been elucidated yet.

Objectives: 1) To evaluate the effect of conventional therapy and PDE4 inhibitor in PsA patients with high prevalence of cardiometabolic comorbidities. 2) To identify a molecular patient profile susceptible of being benefit from each therapy regarding disease activity and CV risk.

Methods: Thirty biological-naïve patients with PsA were treated with the PDE4 inhibitor (Apremilast), Methotrexate or combined therapy (Apremilast and Methotrexate) following the clinical routine practice for 6 months. A cohort of 30 age and sex-matched healthy donors (HDs) was included. Plasma and peripheral blood mononuclear cells (PBMCs) were isolated from peripheral blood of patients and HDs. Different parameters related to the cardiometabolic risk were analyzed, including: atherogenic index, ratio apolipoprotein B (apo B)/apolipoprotein A (apo A), insulin resistance (IR), metabolic syndrome, obesity, arterial hypertension, and the SCORE. Clinical and analytical parameters were collected: lipid profile (total cholesterol, HDL-cholesterol, LDL-cholesterol, triglycerides, apo A and apo B), glucose and insulin, body surface area (BSA) affected by psoriasis, number of tender and swollen joints, DAPSA, C-reactive protein and erythrocyte sedimentation rate. A panel of 92 proteins involved in cardiovascular disease (cardiovascular panel II, Olink) and an adipocytokine profile was measured in plasma and PBMCs. Hard cluster analysis was carried out in order to identify two distinctive molecular phenotypes depending on the treatment response related to the reduction of CV risk.

Results: Among the 92 CV-related proteins, the higher levels of two molecules, CD163 and FABP4 observed in PsA patients compared to HDs, were strongly associated with elevated rates of CV risk factors such as apolipoprotein B/A and atherogenic risks, metabolic syndrome, obesity, IR, arterial hypertension and smoking. Thus, we could identify two clinical profiles of patients according to the plasma levels of these molecules: cluster 1 defined by 20 patients with low levels of CD163 and FABP4 and low prevalence of CV comorbidities and cluster 2 defined by 10 patients with high levels of CD163 and FABP4 and high prevalence of CVD comorbidities. Regarding cluster 2, those patients that were treated with Apremilast or combined therapy had a significant reduction of CD163 and FABP4 associated with a drop in total cholesterol, apo B, IR state and body mass index. In addition, both PDE4 inhibitor and combined treatment reduced activity disease. However, Methotrexate in monotherapy did not show a beneficial effect in PsA patients displaying higher levels of CD163, FABP4, total cholesterol and no changes in disease activity after treatment. In regard to cluster 1, the three therapy strategies reduced disease activity after 6 months. Even with low rates of comorbidities, those patients treated with Apremilast had reduced levels of total cholesterol and apolipoprotein B and body mass index after 6 months of therapy. However, no changes were observed in the treatment with Methotrexate or Methotrexate combined with Apremilast.

Conclusion: 1- CD163 and FABP4 could be considered as potential biomarkers of treatment efficacy regarding cardiometabolic comorbidities. 2- Apremilast might target metabolic alterations in PsA modulating lipid profile, insulin resistance and body mass index, decreasing the levels of surrogate CV-related molecules. 3- Apremilast treatment should be considered in PsA patients with higher rates of cardiometabolic comorbidities.

Funded by ISCIII (PI17/01316 and RIER RD16/0012/0015) co-funded with FEDER.

Disclosure of Interests: None declared.

DOI: 10.1136/annrheumdis-2021-eular.2956

AB0563

DISCONTINUATION OF ANTI-TNF α IN PATIENTS WITH PSORIATIC ARTHRITIS: A SINGLE-CENTER EXPERIENCE

D. Graceffa¹, V. Lora¹, A. Cristaudo¹, F. Elia¹, A. Morrone¹, C. Bonifati¹.

¹San Gallicano Dermatological Institute, IRCCS, Clinical Dermatology, Rome, Italy

Background: TNF inhibitors have been largely demonstrated to be effective and reasonably safe for the treatment of psoriatic arthritis (PsA). Current EULAR guidelines recommend the use of an anti-TNF as first choice treatment in patients with PsA for whom a synthetic DMARD (usually methotrexate or leflunomide) is not efficacious or not well tolerated [1]. In a scenario where biologic treatments are easily available, and the treat to target strategy is widely accepted, a complete disease remission or at least a minimal disease activity are considered realistic goals to be achieved in a growing proportion of patients [2]. However, there remains very little research regarding anti-TNF discontinuation in patients who achieved a complete remission [3-5].

Objectives: The primary aim of this study was to measure the disease-free interval after anti-TNF discontinuation, secondary it was investigated whether the use of Power Doppler Ultrasound (PDUS) and Contrast Enhanced Ultrasound (CEUS) could improve the diagnostic accuracy in the recognition of the

relapse. Finally, we wanted to characterize the clinical features of the disease recurrence.

Methods: From June 2018, 35 patients with PsA (27 males and 8 female) treated with anti-TNF, in stable remission were prospectively monitored for 1 year after treatment discontinuation. Remission was defined as documented absence of clinical and ultrasonographic signs of arthritis or enthesitis. Complete rheumatological and dermatological examinations were performed in all participants, at baseline and every 8-12 weeks: American College of Rheumatology (ACR) 66-68 joint count; Psoriasis Area Severity Index (PASI); patient pain visual analog score (VAS); patient global disease activity VAS; Health Assessment Questionnaire (HAQ); Leeds Enthesitis Index (LEI); Bath Ankylosing Spondylitis Disease Activity Index (BASDAI); Bath Ankylosing Spondylitis Functional Index (BASFI); Power Doppler Ultrasound (PDUS) of the involved joints and entheses, Contrast Enhanced Ultrasound (CEUS) of a selected joint or enthesis and laboratory inflammation tests.

Results: 31 out of the 35 enrolled patients, experienced a disease recurrence with an average disease-free interval of 27.9 ± 21.1 weeks (Figure 1). In 3 patients the treatment was restored for a relapse of the skin psoriasis, 8 patients reported only axial symptoms of disease relapse and 20 patients had both axial and peripheral joints involvement (average DAPSA score of 23.6 ± 11.1 ; average BASDAI score of 4.7 ± 2.6 ; average BASFI score 4.5 ± 2.9). In all cases the disease flare was moderate and all patients promptly regained remission after restarting the treatment. Both PDUS and CEUS were safe and reliable showing a good percentage of accordance (95,4%) in detecting synovitis and enthesitis.

Conclusion: The rate of disease relapse of PsA after anti-TNF discontinuation is relevant. However the disease-free interval was not short. Retreatment with the same anti-TNF was effective and safe.

REFERENCES:

- [1] Gossec L, Baraliakos X, Kerschbaumer A, et al. EULAR recommendations for the management of psoriatic arthritis with pharmacological therapies: 2019 update. *Ann Rheum Dis*. 2020 Jun;79(6):700-712.
- [2] Dures E, Shepperd S, Mukherjee S, et al. Treat-to-target in PsA: methods and necessity. *RMD Open*. 2020 Feb;6(1):e001083.
- [3] Stober C, Ye W, Guruparan T, et al. Prevalence and predictors of tumour necrosis factor inhibitor persistence in psoriatic arthritis. *Rheumatology (Oxford)*. 2018 Jan 1;57(1):158-163.
- [4] Huynh DH, Boyd TA, Etzel CJ, et al. Persistence of low disease activity after tumour necrosis factor inhibitor (TNFi) discontinuation in patients with psoriatic arthritis. *RMD Open*. 2017 Jan 16;3(1):e000395.
- [5] Ye W, Tucker LJ, Coates LC. Tapering and Discontinuation of Biologics in Patients with Psoriatic Arthritis with Low Disease Activity. *Drugs*. 2018 Nov;78(16):1705-1715.

Fig.1 Relapse-free rates after discontinuing anti-TNF. Kaplan-Meier curve demonstrated the disease free interval after biologic cessation.

Disclosure of Interests: None declared.

DOI: 10.1136/annrheumdis-2021-eular.3002

AB0564

RHEUMATOLOGISTS' VIEWS AND EXPERIENCES IN MANAGING PsA PATIENTS BASED ON TREATING TO TARGET STRATEGY: A CROSS-SECTIONAL STUDY IN CHINA

L. Xu¹, Z. Wang¹, J. Xue¹, M. Bai¹, H. Zhong¹, Y. Su¹. ¹Peking University People's Hospital, Department of Rheumatology and Immunology, Beijing, China

Background: Psoriatic arthritis (PsA) is a chronic inflammatory arthritis with progressive, erosive destruction associated with functional impairment. Principles of treat-to-target (T2T) have been widely used in rheumatoid arthritis, which has powerfully improved patient outcomes. In 2017, the concept of T2T has proposed to apply in PsA patients. However, the awareness and implementation of evidence-based T2T treatment guidelines varies across different geographical regions of China, hospital grades, professional status and specialties.

Objectives: The study aimed to investigate Rheumatologists' views and experiences in managing PsA patients with T2T strategy in china.

Methods: A cross-sectional questionnaire survey of Rheumatologists in China from 5 August to 15 August 2020 was conducted for this study. Rheumatologists were contacted by WeChat (a Chinese cell/web app) and asked to complete a web-based questionnaire anonymously. The electronic questionnaire was sent out by the internet platform of WenJuanXing via WeChat (<https://www.wjx.cn/>). The questionnaire was designed to collect: (a) demographic information; (b) patient management in clinical practice for Rheumatologists; (c) familiarity and application of T2T strategy in Rheumatologists. *P* values ≤ 0.05 were considered significant.

Results: (1) A total of 823 rheumatologists (69.87% female, 30.13% male) provided valid answers to the questionnaire. 71.09% of the participants major in Modern Western Medicine, 28.91% major in traditional chinese medicine. A total of 75.94% worked in Grade-A Tertiary Hospital. A total of 52.73% had more than 10 years of work experience and 63.55% had High-level title. (2) More than half of the patients were followed up by 69% Rheumatologists in their daily practice. The proportion of follow-up patients increased powerfully in the group of Rheumatologists who major in Modern Western Medicine ($P=0.014$), work in Grade-A Tertiary Hospital ($P<0.001$), have more than 10 years of work experience ($P<0.001$) and High-level title ($P<0.001$). (3) 36.45% Rheumatologist thought the frequency for patient disease activity assessment was every 1 month and 53.1% was every 3 months. And 41.7% Rheumatologist prefer to use PASDAS for disease activity criteria, and only 3.6% choose MDA. (4) A total of 62.43% thought they were familiar with T2T strategy, and 83.6% Rheumatologists applied T2T strategy in clinical practice. Among 135 Rheumatologists who did not apply T2T strategy, 62.2% of Rheumatologists thought that the main barrier to T2T application was that they did not fully understand the strategy. The frequency of application of T2T strategy in clinical practice was significantly different between Rheumatologists who major in Modern Western Medicine (60.75%) and traditional chinese medicine (22.84%) ($P=0.023$).

Conclusion: In china, the management of PsA patients need to be standardized to improve patient outcomes. And the promotion of T2T strategy in PsA need to be further strengthened.

REFERENCES:

- [1] Smolen JS, Schöls M, Braun J, et al. Treating axial spondyloarthritis and peripheral spondyloarthritis, especially psoriatic arthritis, to target: 2017 update of recommendations by an international task force. *Ann Rheum Dis*. 2018 Jan;77(1):3-17.
- [2] Tucker LJ, Ye W, Coates LC. Novel Concepts in Psoriatic Arthritis Management: Can We Treat to Target? *Curr Rheumatol Rep*. 2018 Sep 18;20(11):71.
- [3] Coates LC, Helliwell PS. Treating to target in psoriatic arthritis: how to implement in clinical practice. *Ann Rheum Dis*. 2016;75(4):640-643.

Figure 1 A. Rheumatologist priority of frequency for patient follow-up in different disease status. B. Rheumatologist priority of frequency for patient disease activity assessment in clinical practice. C. Rheumatologist priority of disease activity criteria for PsA patients.

Disclosure of Interests: None declared.

DOI: 10.1136/annrheumdis-2021-eular.3438

AB0565 JAK INHIBITORS AND PSORIATIC ARTHRITIS: A SYSTEMATIC REVIEW AND META-ANALYSIS

E. Campanaro¹, A. Zaffaroni², A. Batticciotto¹, A. Cappelli¹, M. P. Donadini³, A. Squizzato³. ¹ASST Sette laghi, Ospedale Di Circolo - Fondazione Macchi, Rheumatology Unit, Internal Medicine Department, Varese, Italy; ²University of Varese Insubria, Department of Medicine and Surgery, Varese, Italy; ³University of Varese Insubria, Department of Medicine and Surgery, Research Center on Thromboembolic Diseases and Antithrombotic Therapies, Varese, Italy

Background: Despite the therapeutic armamentarium for the treatment of psoriatic arthritis (PsA) has considerably expanded over the last thirty years, there is a huge necessity of finding effective drugs for this disease. JAK inhibitors (JAKi) are small molecules able to interfere with the JAK/STAT pathway, involved in the pathogenesis of PsA (1). Up to now Tofacitinib is the only JAKi approved by the European Medicines Agency (EMA) for the treatment of PsA but in the next few years the number of approved JAKi is expected to rise significantly.

Objectives: To assess the efficacy and safety of different JAKi for the treatment of PsA.

Methods: A systematic review of the literature was performed to identify randomized controlled trials (RCTs), by electronic search of MEDLINE and EMBASE database until October 2020. Studies were considered eligible if they met the following criteria: I) study was a RCT; II) only patients with PsA were included; III) JAKi was compared to placebo in addition to the standard of care. Two reviewers (FC and AZ) performed study selection, with disagreements solved by the opinion of an expert reviewer (AS). The outcomes were expressed as odds ratio (OR) and 95% confidence intervals (95% CI). Statistical heterogeneity was assessed with the I^2 statistic.

Results: We identified 557 potentially relevant studies. A total of 554 studies were excluded based on title and/or abstract screening. Three RCTs for a total of 947 PsA patients treated with JAKi were included (2,3,4). Two were phase III studies on the efficacy and safety of Tofacitinib (OPAL Beyond and OPAL Broaden) and one was a phase II study on Filgotinib (Equator). All three studies were judged at low risk of bias according to Cochrane criteria (5). The primary efficacy outcome in all the studies was the number of patients who achieved the response rate of the American College of Rheumatology 20 score (ACR20). The outcomes evaluation was performed at 12 week for the Filgotinib trial and at 16 week for the Tofacitinib trials. We used for the main analyses the group of patients randomized to Tofacitinib 5 mg because this is the only dosage approved by the EMA for the treatment of PsA. JAKi showed a significantly higher ACR20 response rate compared to placebo (OR 3.54, 95% CI 1.76 - 7.09, $I^2 = 74\%$). JAKi also showed a significantly higher ACR50 response rate (OR 3.36, 95% CI 2.22 - 5.09, $I^2 = 0\%$), ACR70 response rate (OR 2.82, 95% CI 1.67 - 4.76, $I^2 = 20\%$), PsARC response rate (OR 2.67, 95% CI 1.26 - 5.65, $I^2 = 79\%$), PASI75 response rate (OR 3.15, 95% CI 1.61 - 6.15, $I^2 = 45\%$) compared to placebo. JAKi were also associated with significantly better HAQ-DI (mean difference -0.23 95% CI -0.31 - -0.14) and fatigue, measured with FACIT-F (mean difference 3.54 95% CI 2.13 - 4.94). JAKi compared to placebo were associated with a non-statistically significant different risk of serious adverse events (OR 0.56, 95% CI 0.11 - 2.91, $I^2 = 38\%$).

Conclusion: This is the first published systematic review that performed a comprehensive and simultaneous evaluation of the efficacy and safety of JAKi for PsA in RCTs. Our analysis suggests a statistically significant benefit of JAKi, that appears to be effective and safe over placebo. The impact of these data on international clinical guidelines needs further investigation.

REFERENCES:

- [1] George E Fragoulis, et al. JAK-inhibitors. New players in the field of immune-mediated diseases, beyond rheumatoid arthritis, *Rheumatology*, Volume 58, Issue Supplement_1, February 2019, Pages i43-i54
- [2] Mease P, et al. Tofacitinib or adalimumab versus placebo for psoriatic arthritis. *N Engl J Med* 2017; 377: 1537-50.
- [3] Gladman D, et al. Tofacitinib for psoriatic arthritis in patients with an inadequate response to TNF inhibitors. *N Engl J Med* 2017; 377: 1525-36.
- [4] Mease P, et al. Efficacy and safety of filgotinib, a selective Janus kinase 1 inhibitor, in patients with active psoriatic arthritis (EQUATOR): results from a randomised, placebo-controlled, phase 2 trial. *Lancet* 2018;392:2367-77.
- [5] Higgins JP, et Al. Measuring inconsistency in meta-analyses. *BMJ* 2003;327:557-560