-23.08 (20.21), respectively) vs PBO (mean (SD) change from baseline: -0.49 (1.33), -0.35 (1.39), -0.8 (2.16), -4.97 (20.11), respectively, all $p < 0.001$). Significantly more GUS-treated patients achieved a low or very low disease activity state defined by PASDAS, GRACE, and mCPDAI (35.0%, 29.6%, and 45.9%, respectively) vs PBO (4.1%, 2.1%, and 10.4%, respectively, all $p < 0.001$). In addition, 12% of GUS- vs 0% of PBO-treated patients achieved DAPSA remission ($p < 0.01$). Post Week24, improvements in PASDAS, GRACE, mCPDAI, and DAPSA were also observed in PBO→GUS patients (39.3%, 39.3%, 71.4%, and 50.0% achieved disease activity states of low, very low, or remission at Week 44, respectively), and were maintained through Week44 in GUS patients (45.8%, 42.2%, 62.7%, and 51.1% achieved disease activity states of low, very low, or remission, respectively).

Conclusion: GUS demonstrated consistent improvements based on all PsA composite indices evaluated, and efficacy was maintained through Week44.

REFERENCES:

- [1] Helliwell PS, FitzGerald O, and Fransen J. *JRheumatol* 2014;41:1212-1217.
- [2] Scholes MM, Aletaha D, Alasti F, Smolen JS. *AnnRheumDis* 2016;75:811-818.

Disclosure of Interests: Dafna D Gladman Grant/research support from: AbbVie, Amgen, Celgene, Lilly, Novartis, Pfizer, and UCB, Consultant for: AbbVie, Amgen, BMS, Celgene, Galapagos, Gilead, Janssen, Lilly, Novartis, Pfizer, and UCB, Philip Helliwell Grant/research support from: Paid to charity: from AbbVie, Janssen and Novartis, Consultant for: Paid to charity: from AbbVie, Amgen, Pfizer, and UCB and Celgene. Paid to self: from Celgene and Galapagos, Atul Deodhar Grant/research support from: AbbVie, Amgen, Eli Lilly, GSK, Janssen, Novartis, Pfizer, and UCB, Consultant for: AbbVie, Amgen, BMS, Eli Lilly, Janssen, Novartis, Pfizer, and UCB, Alice B Gottlieb Grant/research support from: PI: Incyte Corporation, Janssen-Ortho Inc., Lilly ICOS LLC, Novartis, UCB, XBiotech, Consultant for: AbbVie, Dermira, Incyte Corporation, Lilly ICOS LLC, Novartis, Sun Pharmaceutical Industries Ltd., Avotres (unpaid), XBiotech (unpaid), Speakers bureau: AbbVie, Eli Lilly and Company, Janssen Biotech; advisory board: Bristol-Myers Squibb, Celgene Corporation, Janssen Biotech, Janssen-Ortho Inc., LEO Pharma, Novartis, UCB, Wolf-Henning Boehncke Consultant for: Pfizer Inc, Speakers bureau: Pfizer Inc, Xie L Xu Employee of: Employee of Janssen Research & Development, LLC, Stephen Xu Employee of: Employee of Janssen Research & Development, LLC, Yuhua Wang Employee of: Employee of Janssen Research & Development, LLC, Elizabeth C Hsia Employee of: Employee of Janssen Research & Development, LLC, Christopher T. Ritchlin Grant/research support from: AbbVie, Amgen, UCB Pharma, Consultant for: AbbVie, Amgen, Lilly, Novartis, Pfizer, UCB Pharma

DOI: 10.1136/annrheumdis-2019-eular.177

FRI0441 LONG DISEASE DURATION PREDICTED NON-ALCOHOLIC FATTY LIVER DISEASE IN PSORIATIC ARTHRITIS

Grace Chup-Hei Ho. *Queen Elizabeth Hospital, Medicine, Kowloon, Hong Kong (SAR)*

Background: Psoriasis is known to be associated with non-alcoholic fatty liver disease (NAFLD). Previously studies showed that patients with psoriatic arthritis (PsA) were of higher risk of developing NAFLD compared to non-PsA individuals.

Objectives: To study the prevalence of NAFLD among patients with PsA and factors predicting the development of NAFLD.

Methods: This retrospective study was carried out in a tertiary hospital. Adult patients (>18-year-old) with PsA who attended rheumatology specialist outpatient clinic between 1st Jan 2016 and 31st Dec 2018 were included. Demographic and clinical (disease duration, comorbidities, investigation results and treatment profile) data of these patients were obtained. NAFLD was diagnosed by either imaging or histology. Logistic regression was used to identify factors predicting NAFLD.

Results: 223 patients (male 53%, female 47%) with a mean age of 58-year-old and mean disease duration of 10.5 years were included in the study. Patients with NAFLD (n= 58, 26%), compared to those without, tended to be older (mean age 59.0-year-old vs 57.6-year-old) and had higher proportion of male (64% vs 51%).

Among the patients with NAFLD, 30 (51.7%) had transient abnormal liver function test but none resulted in hepatic failure or death. 10 patients (17.2%) had their treatment for PsA withheld or changed as a result of abnormal liver function due to NAFLD.

Long disease duration (OR 1.005, $p < 0.01$), but not age, predicted NAFLD. In particular, those with disease duration of 10 years or more were of higher risk (OR 2.79, $p < 0.001$). Cardiovascular risk factors including hypertension, diabetes mellitus, dyslipidaemia, and established cardiovascular diseases were not found to be predictors of NAFLD among PsA. None of the treatment agents including steroid, conventional synthetic or biological disease modifying anti-rheumatic drugs (DMARDs) was found to be risk factor for NAFLD.

Conclusion: NAFLD was common among patients with PsA, though it seldom led to significant hepatic impairment or interruption of treatment of PsA. Patients with longer duration of psoriatic arthritis were at risk of developing fatty liver. Traditional cardiovascular risk factors, established cardiovascular diseases or use of any particular treatment agent were not found to be predicting factor of development of NAFLD in PsA.

REFERENCES:

- [1] *Aliment Pharmacol Ther.* 2015 Feb;41(3):293-300
- [2] *J Invest Dermatol.* 2018 Apr;138(4):760-767

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2019-eular.7564

FRI0442 EFFECTIVENESS OF YTTRIUM KNEE SYNOVECTOMY IN PSORIATIC OR SERONEGATIVE ARTHRITIS WHO HAVE FAILED CONVENTIONAL THERAPY

Mark Hoey, Victoria McDowell, Adrian Pendleton. *Musgrave Park Hospital, Rheumatology, Belfast, United Kingdom*

Background: Radiation synovectomy with Yttrium 90Y is indicated for refractory arthritis of various aetiologies e.g. inflammatory joint diseases such as rheumatoid arthritis, seronegative arthritides such as psoriatic arthritis and reactive arthritis, Haemophilic arthritis, Calcium pyrophosphate dihydrate (CPPD) arthritis and pigmented villonodular synovitis (PVNS)¹. Treatment of inflammatory arthritis has improved due to more effective therapy and earlier treatment therefore Yttrium therapy is less commonly used.

Objectives: To assess the response to Yttrium 90Y synovectomy in patients with Psoriatic arthritis or seronegative arthritis with synovitis affecting the knee joint in a cohort of patients who had failed conventional DMARDs, biological DMARDs or intra-articular steroid injections. To identify any possible predictors of good or poor response. To develop a standard operating procedure to improve consistency and also allow service to be potentially expanded.

Methods: Retrospective chart and electronic care record review of all patients receiving Yttrium therapy in Northern Ireland from March 2016 to April 2018. Patient demographics, MRI findings, conventional and biological DMARD use, previous intra-articular steroid use were recorded. Patients were reviewed approximately six months following treatment. The medical notes were reviewed to decide whether there had been a good or poor response to treatment and data analyzed to look for factors that may predict response. The process was evaluated and we developed a standard operating procedure to improve consistency and safety going forward.

Results: 17 patients in total received Yttrium therapy, 9 males. Age range was 18-75 with a mean 41. 10 patients were diagnosed with seronegative arthritis and 7 with psoriatic arthritis. All patients had an MRI of the affected joint(s) which confirmed synovitis in all cases. 9 MRIs showed no significant degenerative changes, 5 showed mild degenerative changes and 3 moderate/severe. All patients had previously received intra-articular steroid injection. 12 patients also were receiving or had failed treatment with a conventional or biological DMARD.

Each knee received a dose of 180MBq Yttrium under direct ultrasound guidance in addition to Triamcinolone 40mg and using Lidocaine 1% local anaesthesia. 3 patients received treatment for both knees.

Reviewing all patients 71% (12/17) reported good efficacy. 78% (7/9) of patients reported good efficacy in group with no osteoarthritis on MRI, 60% (3/5) in the mild osteoarthritis group and 67% (2/3) in the moderate to severe osteoarthritis group. BMI, Age, sex or underlying diagnosis did

not appear to predict response in this group. There were no adverse events reported

Conclusion: Yttrium therapy is not widely used with only one unit in Northern Ireland performing the procedure. The use of effective DMARDs and biological therapy has improved management of psoriatic and rheumatoid arthritis. In spite of this some patients still have refractory disease. We have shown in this observational study that in patients with knee synovitis despite treatment with DMARDs, biologics and intra-articular steroids, Yttrium synovectomy shows good efficacy, is a relatively low cost and generally safe treatment option for these patients. Going forward this study and our standard operating procedure will allow us to develop criteria to help select patients for Yttrium therapy and standardize our treatment.

REFERENCES:

- [1] Clunie G, Fischer M (2003) EANM procedure guidelines for radiosynovectomy. *Eur J Nucl Med* 30:BP12–BP16

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2019-eular.4194

FRI0443

IMPACT OF APREMILAST ON PSAID CORE COMPONENTS IN PATIENTS WITH A LIMITED NUMBER OF ACTIVE JOINTS: RESULTS FROM THE REAL-WORLD, PROSPECTIVE, MULTICENTRE REWARD STUDY

Tim Jansen¹, Eric-Jan Kroot², Arie van Vliet³, Jan Pander³, Marijn Vis⁴. ¹Vecuri MC, Venlo, Netherlands; ²Elkerliek, Helmond, Netherlands; ³Celgene, Utrecht, Netherlands; ⁴ErasmusMC, Rotterdam, Netherlands

Background: Recent data suggest that patients with moderately active psoriatic arthritis (PsA) and a limited number of active joints have a high likelihood of achieving treatment goals with apremilast treatment.^{1,2} Real-world evidence on the effect of apremilast on patients' perception of the impact of their disease is limited.

Objectives: To describe the effects of apremilast on the impact of disease in the real world as measured by the Psoriatic Arthritis Impact of Disease (PsAID) questionnaire in PsA patients with SJC ≤4 at baseline.

Methods: The prospective, multicentre, observational REWARD study (The Netherlands) is investigating apremilast treatment in real-world patients with PsA. Descriptive statistics were assessed for disease measures, including swollen joint count (SJC; 0-66) and tender joint count (TJC; 0-68), PsAID (0-10) and patient's perception of pain based on the visual analog scale (VAS; 0-100 mm) among patients with limited number of swollen joints (SJC ≤4) at baseline. We report the effects of apremilast on these disease measures at treatment initiation and at the first 6 months of treatment with a data cutoff of December 2018.

Results: A total of 48 patients from 9 clinics who were receiving apremilast were included in this interim analysis. Among these patients, 31 (65%) had SJC ≤4 and 17 (35%) had SJC >4 at baseline. Of patients with SJC ≤4 at baseline, 18 and 8 had at least 3 and 6 months of follow-up, respectively, at the time of data cutoff. Results are reported for patients with available data at each time point. Baseline characteristics for patients with SJC ≤4 included a mean age of 54 years, mean BMI of 29.1 and mean years since PsA diagnosis of 7.0 years; 58% of patients were female, 90% had prior cDMARD use and 29% had prior biologic use. For patients with SJC ≤4, disease measures were reported as follows: The mean SJC at baseline, 3 and 6 months were 1.1, 0.6 and 0.1 and the mean TJC at baseline, 3 and 6 months were 4.5, 3.6 and 1.5. The mean PsAID scores at baseline, 3 and 6 months were 4.2, 3.4 and 2.6. Individual PsAID domain scores by time points are shown (Figure). Patients with a limited number of swollen joints showed gradual improvements in all domains of the PsAID. Mean Pain VAS scores at baseline, 2 weeks, 6 weeks, 3 months and 6 months were 47, 48, 39, 29 and 26 in these patients.

PsAID Domains in Patients With SJC ≤4 at Baseline*

*Includes patients (n=8) with data available at Month 6 and at baseline.

Conclusion: Results from the real-world, prospective, multicenter, observational REWARD study suggest that PsA patients with a limited number of active swollen joints may benefit from apremilast treatment. Apremilast was associated with improvements in the perceived impact of disease, as observed by reductions in the PsAID and its core components.

REFERENCES:

- [1] McInnes I, et al. *Ann Rheum Dis*. 2018;77(Suppl 2). Abstract 0927. 2. Coates LC, et al. *Arthritis Rheumatol*. 2018;70(Suppl 10). Abstract 1607.

Disclosure of Interests: Tim Jansen Grant/research support from: Olatec, Consultant for: Abbvie, Celgene, Menarini, Novartis, Speakers bureau: Grünenthal, Eric-Jan Kroot: None declared, Arie van Vliet Employee of: Celgene Corporation, Jan Pander Employee of: Celgene Corporation, Marijn Vis Grant/research support from: Novartis

DOI: 10.1136/annrheumdis-2019-eular.2839

FRI0444

EFFICACY AND SAFETY OF SECUKINUMAB IN PATIENTS WITH PSORIATIC ARTHRITIS FOLLOWING INADEQUATE RESPONSE TO SYNTHETIC OR BIOLOGICAL DISEASE MODIFYING ANTIRHEUMATIC DRUGS IN REAL-LIFE SETTINGS

Kalliopi Klavdianou¹, Argyro Lazarini¹, Dimitrios Tseronis², Christina Tsalapaki¹, Panagiota Rapsomaniki², Katerina Antonatou¹, Konstantinos Thomas¹, Dimitrios Boumpas², Dimitrios Vassilopoulos¹, KATSIMPRI PELAGIA². ¹Joint Rheumatology Program, National and Kapodistrian University of Athens, School of Medicine-Clinical Immunology-Rheumatology Unit, 2nd Department of Medicine, Athens, Greece; ²Joint Rheumatology Program, National and Kapodistrian University of Athens, School of Medicine-Clinical Immunology-Rheumatology Unit, 4th Department of Medicine, Athens, Greece

Background: The data regarding the efficacy and safety of Secukinumab (SEC) in patients with psoriatic arthritis (PsA) in daily clinical practice are scarce.

Objectives: To assess the safety and efficacy of SEC in patients with PsA in real life settings.

Methods: All PsA patients treated with SEC in the Rheumatology Units of 2 referral University Hospitals were prospectively included (from 3/2016-12/2018). Patients' characteristics, treatments and indices of disease activity (DAPSA, DAS28-CRP, BASDAI) and function (HAQ, BASFI) as well as the extent of skin disease (BSA) were recorded at baseline and during therapy.

Results: 79 patients treated with SEC were included; 75% were females (n=59) with a mean age of 54±13.4 years, a median disease duration of 7.8 years and a median SEC treatment duration of 10 months (IQR 13). At baseline, 42% had axial involvement, 25% enthesitis and 13% dactylitis. The majority of patients had previously failed anti-TNFs (91%, n=72; n=1: 32%, n=2: 43% or n≥3: 25%), anti-IL12/23 (37%), both biologic agents (34%) or apremilast (5%). SEC was administered in combination with csDMARDs in 55% and corticosteroids in 40% of patients, respectively. At the end of the follow-up period (median: 15 months), patients' disease activity (median DAPSA: 29 → 18.5, p<0.001, DAS28-CRP: 4.6 → 3.7, p=0.05, BASDAI: 5.5 → 3.2, p=0.15), function (median HAQ: 1 → 0.38, p=0.07, BASFI: 7 → 3.2, p=0.14) and skin psoriasis (median BSA: 2 → 0%, p=0.005) improved. Drug survival at the last follow-up visit was 63% (n=50). Reasons for SEC discontinuation were inadequate response (25%, n=20), serious adverse events (7%, n=5) or other reasons (5%, n=4). During follow-up there were 12 adverse events (1.2/100 patient-years); among them 5 were serious (0.5/100 patient-years). The rate of serious infections was 0.1/100 patient-years. Two fungal infections (one oral-genital and one inguinal that improved with local therapy) and three cases of cancer were also recorded (two colon cancers/one fatal and one endometrial cancer).

Conclusion: In a large, real life, cohort of patients with PsA, resistant to different biologics (anti-TNFs and/or anti-IL12/23), SEC displayed a high retention rate (63% after a median follow-up of 15 months) without significant side effects. These data emphasize the role of SEC as a viable therapeutic option even in patients with difficult to treat, multi-resistant PsA in daily clinical practice.

Acknowledgement: This work was supported by research grants from the Special Account for Research Grants (S.A.R.G.), National and Kapodistrian University of Athens, Athens, Greece

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2019-eular.7006