risk of infections (33%), and history of malignancy (22.6%), whereas a preference for an oral drug drove the choice only in 7% of patients.

Abstract SAT0327 – Table 1. baseline prevalence of comorbidities

COMORBIDITY	PREVALENCE (n=97)
Hypertension	34%
History of malignancy	22%
Fibromyalgia	15%
Latent tuberculosis	14%
Liver disease	14%
Lung disease	13%
Dyslipidemia	12%
Diabetes	11%
Depression	10%
HBV/HCV infection	9%
Osteoporosis	8%
Hematological disorders	7%
Cardiovascular disease	7%
Gastrointestinal disorders	3%
Neurological disorders	3%

Conclusions: Based on our analysis, apremilast is mainly used in PsA with oligoarthritis, enthesitis, mild skin involvement, and low risk of disease progression, carrying comorbidities (especially history of infections and malignancies) with contraindications to the use of biologic drugs.

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Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.4139

SAT0328 WEIGHT-LOSS IMPROVES DISEASE ACTIVITY IN OBESE PATIENTS WITH PSORIATIC ARTHRITIS

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Background: Obesity is over-represented in patients with psoriatic arthritis (PsA) and associated with increased risk of getting the disease, higher disease activity, poorer effect of treatment and in addition cardiovascular co-morbidity.

Objectives: The aim of this study was to determine the effects of weight-loss treatment on disease activity in patients with PsA and obesity

Methods: Patients with PsA (Caspar criteria) and obesity (body mass index BMI ≥ 33 kg/m²) where recruited from three Rheumatology clinics in the Western Sweden. Weight-loss treatment with Very Low Energy liquid Diet (VLED), which comprises a daily energy intake of 640 kcal, was given during 12–16 weeks, depending on BMI. The first strict period was followed by a structured reintroduction of an energy restricted diet during 18 weeks. The treatment was given within the framework of a structured program including support and medical follow-up at the Obesity Unit at Sahlgrenska University Hospital.

Treatment with DMARDs and biologics was held constant from 3 month before baseline until 6 months after baseline. The patients were assessed with 66/68 joints count, back-mobility tests, body surface area (BSA), questionnaires, ESR, CRP and BMI at baseline, 3 and 6 months. The number of patients reaching Psoriatic Arthritis Response Criteria (PsARC) and Minimal Disease Activity (MDA) was calculated.

Results: Totally 41 PsA patients, median age 54 (IQR 48–62) years, 63% women were included. The median weight-loss was 18.7 (IQR 14.6–26.5) kg. BMI decreased from median 35.2 (34.1–38.1) to 29.7 (26.2–31.5) kg/m². A majority of the disease activity parameters improved significantly (Table). Totally 16 patients (39.0%) reached PsARC and the number of patients with MDA increased from n=12 (29%) to n=22 (54%), p<0.001 between baseline and the 6 months visit.

Conclusions: Weight-loss treatment with VLED had significant positive effects on disease activity in joints, entheses and skin in patients with PsA and obesity.

Disclosure of Interest: E. Klingberg Grant/research support from: The VLED used in this study was sponsored by Cambridge Weight Plan., A. Bilberg: None

declared, S. Björkman: None declared, B. Eliasson: None declared, I. Larsson: None declared

n=41	BASELINE Median (IQR)	6 MONTHS Median (IQR)	p-value
Tender joints 68, score	4 (1–14)	2 (0–6.5)	<0.001
Swollen joints 66, score	0 (0–1)	0 (0–0.5)	0.021
Leeds enthesitis index	2 (0–4)	0 (0–3)	0.001
BSA, %	0.75 (0–2.25)	0.25 (0–1.25)	0.014
BASMI, score	2.8 (1.8–3.6)	2.8 (2.0–3.4)	0.664
CRP	4.0 (2.0–8.5)	2.0 (1.0–6.5)	0.041
ESR, mm/h	12.0 (5.5–18.0)	14 (6.0–27.5)	0.008
VAS Pain, mm	30 (17–62)	20 (5.0–56.5)	0.005
VAS Global health, mm	33 (17.5–57.3)	14 (6–51)	0.002
VAS Fatigue, mm	55 (21–66)	30 (8–44)	0.001
HAQ, score	0.63 (0.13–1.0)	0.25 (0–0.63)	<0.001
DAS-28, score	2.62 (1.92–4.02)	2.44 (1.97–3.69)	0.013

DOI: 10.1136/annrheumdis-2018-eular.4235

SAT0329 FIBROMYALGIA IN PATIENT WITH PSORIATIC ARTHRITIS: RELATIONSHIP WITH ENTHESTOPATHY, SLEEP, FATIGUE AND QUALITY OF LIFE

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Background: Fibromyalgia is a syndrome characterised by musculoskeletal pain, sleep disturbance and fatigue. Fibromyalgia commonly accompanies rheumatic diseases. Enthesopathy seen in psoriatic arthritis (PsA) patients may have effect on fibromyalgia.

Objectives: To evaluate relationship of fibromyalgia with enthesopathy, sleep, fatigue and quality of life in patients with psoriatic arthritis.

Methods: The psoriatic arthritis patients according to CASPAR criteria were included into the study. Fibromyalgia diagnosis was based on 2010 ACR criteria. Demographic (age, gender, marital status, education, body mass index) and clinical parameters (disease duration, comorbidities, Moll-white classification of PsA) were noted. Disease activity and enthesopathy were evaluated with Disease Activity Score-28 (DAS-28) and Maastricht Ankylosing Spondylitis Enthesitis Score (MASES), respectively. Functional assessment scales in this study were Psoriatic Arthritis Quality of Life (PsAQoL), Pittsburgh Sleep Quality Index (PSQI), Multidimensional Assessment of Fatigue (MAF). Fibromyalgia Impact Questionnaire (FIQ) was used to assess functional status of fibromyalgia. The difference in mean scores between fibromyalgia and the patients without fibromyalgia were analysed with Mann-Whitney U test. Spearman correlation coefficient (rho) was used for correlations between functional parameters. p<0.05 was accepted as significant.

Results: We enrolled 50 PsA patients (32 female, 18 male) with a mean age 49.6 years (SD: 10.4) and mean disease duration 90.2 months (SD: 90.8). Thirty-two patients (64% of PsA patients) fulfilled ACR criteria for fibromyalgia. The mean scores of MASES, PSQI, MAF and PsAQoL were significantly higher in patients with fibromyalgia (p<0.05). The correlations between FIQ and other functional parameters were as follows; MASES (rho=0.73, p<0.0005), PSQI (rho=0.56, p<0.0005), MAF (rho=0.63, p<0.0005), PsAQoL (rho=0.69, p<0.0005). There was no significant correlation between FIQ and disease duration (p>0.05). Weak correlation was existing between FIQ and DAS-28 (rho=0.30, p=0.03).

Abstract SAT0329 – Table 1. Clinical characteristics of patients (n=50)

	Min-Max	Median (SD)	Lower-Upper Quartiles
DAS-28	1,20– 5,60	2,60 ^{1,18}	1,99–3,50
MASES	0–13	3,00 ^{4,84}	0,00–10,00
PSQI	0–14	6,00 ^{4,50}	2,00–11,00
PSAQOL	0–20	6,00 ^{5,79}	1,75–11,25
MAF	1–45,80	27,25 ^{14,98}	10,75–37,75
FIQ	0–92,82	32,25 ^{26,54}	10,75–52,73

DAS-28: Disease activity score-28, MASES: Maastricht Ankylosing Spondylitis Enthesitis Score, PSQI: Pittsburgh Sleep Quality Index, PSAQOL: Psoriatic Arthritis Quality of Life, MAF: Multidimensional Assessment of Fatigue, FIQ: Fibromyalgia Impact Questionnaire, SD: Standart Deviation

Conclusions: Coexistence of fibromyalgia in PsA patients is associated with presence of enthesopathy, poor quality of life, sleep disturbance and fatigue. It is an important aspect to diagnose and treat fibromyalgia in PsA patients for comprehensive treatment.

Disclosure of Interest: F. Ulutatar: None declared, C. Unal: None declared, M. T. Duruoz Grant/research support from: ABVIE, Consultant for: NOVARTIS, Speakers bureau: ABDI IBRAHIM
DOI: 10.1136/annrheumdis-2018-eular.6678

SAT0330 CHANGES IN LYMPHOCYTES AND LYMPHOCYTE SUBSETS IN TOFACITINIB-TREATED PATIENTS WITH PSORIATIC ARTHRITIS

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Background: Tofacitinib is an oral Janus kinase (JAK) inhibitor for the treatment of psoriatic arthritis (PsA). Cytokines involved in lymphocyte development, function and homeostasis signal through JAKs, and reductions in mean lymphocyte count over time have been reported in tofacitinib-treated patients (pts) with rheumatoid arthritis.¹

Objectives: To characterise the effects of tofacitinib on absolute lymphocyte counts (ALCs) and lymphocyte subset counts (LSCs) in pts with PsA.

Methods: Data were pooled from 2 placebo (PBO)-controlled, double-blind, Phase 3 studies (OPAL Broaden [12 months; NCT01877668]; OPAL Beyond [6 months; NCT01882439]). Pts had active PsA and inadequate response to ≥ 1 conventional synthetic DMARD (OPAL Broaden) or to ≥ 1 tumour necrosis factor inhibitor (OPAL Beyond). Pts were randomised to tofacitinib 5 mg twice daily (BID), tofacitinib 10 mg BID, adalimumab 40 mg subcutaneous injection once every 2 weeks (active control; OPAL Broaden only) or PBO. PBO pts advanced in a blinded manner to tofacitinib 5 or 10 mg BID at Month (M)3. ALCs and LSCs were collected every 3 months as part of safety monitoring procedures in the Phase 3 studies (any abnormalities were confirmed upon retesting). Median ALCs and LSCs are reported up to M6. Incidence rates (pts with event/100 pt-years) for serious infections (SIs) were assessed by confirmed (two sequential measurements) ALC categories (≥ 2.0 , <2.0 – 1.5 , <1.5 – 1.0 and <1.0 – $0.5 \times 10^3/\text{mm}^3$) up to M12.

Abstract SAT0330 – Table 1. Median (range) absolute lymphocyte counts and lymphocyte subset counts up to Month 6, pooled across OPAL Broaden and OPAL Beyond

	Tofacitinib 5 mg BID N=238	Tofacitinib 10 mg BID N=236	Adalimumab 40 mg SC Q2W ^a N=106	Placebo ^b N=236
ALC ($\times 10^3/\text{mm}^3$)				
Baseline	1.74 (0.78–5.24)	1.71 (0.72–4.20)	1.62 (0.79–3.20)	1.69 (0.60–3.78)
Month 3	1.71 (0.60–4.38)	1.75 (0.47–4.74)	1.96 (1.11–3.80)	1.69 (0.65–3.45)
Month 6	1.68 (0.22–4.42)	1.68 (0.55–4.51)	1.88 (0.87–4.69)	–
Total T cells: CD3+ ($\times 10^3/\text{mm}^3$)				
Baseline	1.32 (0.48–3.88)	1.35 (0.44–3.60)	1.27 (0.43–2.73)	1.28 (0.26–3.04)
Month 3	1.30 (0.41–4.45)	1.33 (0.49–3.18)	1.44 (0.62–3.04)	1.35 (0.34–2.69)
Month 6	1.25 (0.28–3.66)	1.33 (0.26–3.30)	1.47 (0.71–4.08)	–
T-helper cells: CD4+ ($\times 10^3/\text{mm}^3$)				
Baseline	0.88 (0.32–2.24)	0.87 (0.26–2.68)	0.78 (0.32–2.04)	0.84 (0.08–2.54)
Month 3	0.88 (0.29–3.77)	0.90 (0.32–2.30)	0.93 (0.28–2.15)	0.87 (0.22–2.15)
Month 6	0.84 (0.22–2.64)	0.91 (0.20–2.58)	0.91 (0.44–2.60)	–
Cytotoxic T cells: CD8+ ($\times 10^3/\text{mm}^3$)				
Baseline	0.41 (0.10–1.40)	0.40 (0.08–1.03)	0.39 (0.07–1.16)	0.41 (0.06–1.32)
Month 3	0.38 (0.08–1.43)	0.38 (0.09–1.08)	0.44 (0.09–1.17)	0.43 (0.07–1.18)
Month 6	0.37 (0.05–1.20)	0.36 (0.04–1.32)	0.50 (0.12–1.57)	–
B cells: CD19+ ($\times 10^3/\text{mm}^3$)				
Baseline	0.21 (0.00–1.48)	0.20 (0.00–1.30)	0.18 (0.01–0.62)	0.21 (0.00–1.15)
Month 3	0.27 (0.01–1.08)	0.30 (0.01–1.42)	0.27 (0.02–0.99)	0.22 (0.01–0.93)
Month 6	0.26 (0.01–1.32)	0.28 (0.00–1.22)	0.26 (0.02–0.95)	–
NK cells: CD16+56+ ($\times 10^3/\text{mm}^3$)				
Baseline	0.23 (0.06–1.39)	0.22 (0.06–0.94)	0.22 (0.03–0.60)	0.20 (0.04–0.75)
Month 3	0.20 (0.04–0.79)	0.18 (0.03–0.75)	0.22 (0.05–0.66)	0.22 (0.03–0.71)
Month 6	0.19 (0.04–0.83)	0.19 (0.04–1.09)	0.25 (0.05–0.75)	–

^aOPAL Broaden only; ^bPlacebo-controlled period was 3 months

ALC, absolute lymphocyte count; BID, twice daily; N, number of patients with observations at baseline; Q2W, once every 2 weeks; SC, subcutaneous

Results: The analysis included 816 pts: tofacitinib 5 mg BID, n=238; tofacitinib 10 mg BID, n=236; adalimumab, n=106; PBO, n=236. Up to M6, minimal decreases in median ALC were observed in pts who received tofacitinib 5 mg BID, tofacitinib 10 mg BID or PBO (up to M3 only) (Table). LSCs, including total T

cells (CD3+), cytotoxic T cells (CD8+) and NK cells (CD16 +56+), showed a similar trend to ALC for both tofacitinib doses and PBO (Table), with minimal decreases over 6 months. B cells (CD19+) showed numerical increases across treatments. Percentage changes from baseline in LSCs at M6 showed a generally similar pattern to absolute values. In adalimumab-treated pts, ALCs and all LSCs increased over 6 months. Up to M6, no pts receiving tofacitinib or adalimumab had confirmed ALC $<0.5 \times 10^3/\text{mm}^3$; 1 pt receiving PBO had a confirmed ALC $<0.5 \times 10^3/\text{mm}^3$ over 3 months, resulting in discontinuation from the study before advancing to active treatment. Up to M12, SIs were reported in 7 tofacitinib- (including 2 pts who advanced from PBO) and 1 adalimumab-treated pt; of these, 1 SI (PBO advanced to tofacitinib) occurred >6 months after treatment initiation. There was no trend that suggested an increased risk of SIs in any ALC category (data not shown).

Conclusions: Up to M6 in tofacitinib-treated pts with active PsA, minimal changes in ALCs and LSCs were observed. Although incidence of SIs did not appear to be related to ALC, conclusions are limited by the small number of events.

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Acknowledgements: Study sponsored by Pfizer Inc. Medical writing support was provided by A MacLachlan of CMC and funded by Pfizer Inc.

Disclosure of Interest: G. Burmester Grant/research support from: Pfizer Inc, Consultant for: Pfizer Inc, W. F. Rigby Consultant for: Roche, E. Choy Grant/research support from: BioCancer, Pfizer Inc, Roche, UCB, Consultant for: Amgen, Biogen, Chugai Pharma, Eli Lilly, Janssen, Novartis, Pfizer Inc, Regeneron, Roche, R-Pharm, Sanofi, Speakers bureau: Amgen, Bristol-Myers Squibb, Boehringer Ingelheim, Chugai Pharma, Eli Lilly, Hospira, MSD, Novartis, Pfizer Inc, Regeneron, Roche, Sanofi-Aventis, UCB, P. Nash Grant/research support from: AbbVie, Bristol-Myers Squibb, Eli Lilly, Janssen, Novartis, Pfizer Inc, Roche, Sanofi, UCB, Consultant for: AbbVie, Bristol-Myers Squibb, Eli Lilly, Janssen, Novartis, Pfizer Inc, Roche, Sanofi, UCB, Novartis, Pfizer Inc, Roche, Sanofi, UCB, Speakers bureau: AbbVie, Bristol-Myers Squibb, Eli Lilly, Janssen, Novartis, Pfizer Inc, Roche, Sanofi, UCB, K. Winthrop Grant/research support from: Bristol-Myers Squibb, Consultant for: AbbVie, Bristol-Myers Squibb, Galapagos, Eli Lilly, Pfizer Inc, UCB, P. Mease Grant/research support from: AbbVie, Amgen, Bristol-Myers Squibb, Celgene, Janssen, Eli Lilly, Novartis, Pfizer Inc, Sun, UCB, Consultant for: AbbVie, Amgen, Bristol-Myers Squibb, Celgene, Janssen, Eli Lilly, Novartis, Pfizer Inc, Sun, UCB, Speakers bureau: AbbVie, Amgen, Bristol-Myers Squibb, Celgene, Genentech, Janssen, Novartis, Pfizer Inc, UCB, P. Young Shareholder of: Pfizer Inc, Employee of: Pfizer Inc, T. Hendriks Shareholder of: Pfizer Inc, Employee of: Pfizer Inc, C. Wang Shareholder of: Pfizer Inc, Employee of: Pfizer Inc, S. Menon Shareholder of: Pfizer Inc, Employee of: Pfizer Inc, D. Graham Shareholder of: Pfizer Inc, Employee of: Pfizer Inc

DOI: 10.1136/annrheumdis-2018-eular.3490

SAT0331 INFLAMMATORY MARKERS AND ADIPOKINES RELATED TO CARDIOVASCULAR RISK AND METABOLIC COMORBIDITIES IN PSORIATIC ARTHRITIS. IN VIVO EFFECTS OF APREMILAST

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Objectives: 1) To evaluate the role of inflammatory mediators and adipokines in the cardiovascular risk profile and the metabolic comorbidities associated with psoriatic arthritis (PsA). 2) To evaluate the effect of apremilast in the adipocytokine pattern, metabolic components and endothelial dysfunction in patients with PsA and metabolic syndrome (MetSyn).

Methods: 55 PsA patients and 30 age and gender-matched healthy donors (HD) were analysed. An extensive clinical analysis including body index mass, lipid profile, HOMA-IR and intra-arterial blood pressure was performed. Endothelial function was measured through post occlusive hyperemia using Laser-Doppler. Different proinflammatory cytokines (TNF α , IL1b and IL6), vascular adhesion molecules (VEGF and E-Selectin) and adipokines (adiponectin, leptin, resistin and visfatin) were analysed on serum by ELISA. Ten biological-naïve patients with PsA having metabolic syndrome were given apremilast 30 mg twice daily for 6 months. All the measures were carried out at basal, week 4 and week 24 after apremilast treatment.

Results: The prevalence of metabolic comorbidities such as MetSyn, obesity and insulin resistance (IR) was significant higher in PsA compared to HD. PsA patients had impaired endothelial function showed by a reduced peak flow and hyperaemia area and increased levels of VEGF and E-Selectin in serum. The levels of