OP0007

HIGH BODY MASS INDEX (BMI) IN PSORIATIC ARTHRITIS (PSA) IS ASSOCIATED WITH HIGHER DISEASE ACTIVITY IN JOINTS AND SKIN, IMPAIRED QUALITY OF LIFE AND MORE DISABILITY: RESULTS FROM THE PSABIO STUDY

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Background: The link between obesity and disease activity in PSA is unclear. Obesity has been associated with a poorer therapeutic response and higher treatment discontinuation rates in patients with PSA being treated with tumour necrosis factor inhibitors (TNFi). Recent data confirm the favourable effect of weight reduction on these factors. There are no data available for other biologics.

Objectives: To investigate the relationship between baseline overweight/obesity and disease activity, patient-reported outcomes and disability, in a large real-world cohort of patients with PsA starting biologic treatment with either ustekinumab (UST) or TNFi.

Methods: The PsABIO study (ClinicalTrials.gov: NCT02627768) is an ongoing observational study evaluating efficacy, tolerability and persistence of 1st, 2nd, and 3rd-line UST or TNFi in PsA in 8 European countries¹ when introduced as part of standard clinical care. Baseline data of the study population were collected and analysed for BMI, disease activity (cDAPSA, psoriasis BSA), patient-perceived impact (PsAID-12), disability (HAQ-DI) and presence or history of CVD/MET. Descriptive statistics on available data and 3 exploratory multiple regression models are shown, to investigate the relationship of cDAPSA, PsAID-12 and HAQ-DI (dependent variables) with BMI, adjusted for age, sex, smoking, BSA, CRP, disease duration and biologic treatment.

Results: In all, 917 patients were included, starting either UST (n=450) or TNFi (n=467): mean (SD) age 49.7 (12.5) years, 55.5% female. The mean (SD) baseline BMI (N=827) was 28.1 (5.8) kg/m², with 40.0% and 30.4% in BMI categories overweight (>25–30) and obese (>30), respectively. In univariate analyses, obesity was linked to worse outcomes (Table 1). More severe disease was associated with higher BMI (Table 2). In multiple regression modelling, higher BMI was independently linked to higher cDAPSA (BMI: $\beta=0.09$ $p=0.026$); to higher patient-perceived disease impact measured by PsAID-12 (BMI: $\beta=0.16$, $p<0.0001$) and to higher disability measured by HAQ-DI (BMI: $\beta=0.21$, $p<0.0001$).

Conclusion: This multi-country routine-care PsA cohort of patients in need of biologic treatment confirms the high prevalence of overweight/obesity and indicates an independent association between high BMI and disease activity as well as patient-reported impact of disease and disability. These results emphasize the need for lifestyle-directed approaches in PsA, such as overweight management in parallel with joint- and skin-focused treatment.

Table 1. PSA outcomes in the PSAbio population according to presence of obesity

	Obese patients (n=231)	Non-obese patients (n=576)
cDAPSA, mean (SD)	33.4 (18.8)	27.7 (18.6)
BSA, %		
<35	41.6	46.3
35-50%	33.1	35.7
>50%	25.3	18.0
Twelve joint count, mean (SD)	6.8 (7.8)	5.1 (7.2)
CRP, mg/L, mean (SD)	3.75 (3.73)	3.2 (3.2)
HAQ-DI (0-10), mean (SD)	6.3 (7.0)	5.1 (7.1)
HAQ-DI 12 SD, standard deviation	3.0 (6.0)	3.0 (6.0)
CRP/HAQ-DI, n (%)	138 (59.7)	389 (67.5)

Table 2. BMI by disease severity/disease characteristics

CVD/MIT*	No CVD/MIT	N	Mean BMI (SD), 95% CI
Skin psoriasis	CVD-MIT	327	30.0 (6.1), 29.3 to 30.6
	MIT	27	27.6 (6.0), 26.8 to 28.3
	CVD+MIT	262	28.1 (5.3), 27.5 to 28.8
Eye treatment	BioRx	152	29.8 (6.6), 28.9 to 30.7
	BioRx+eye	22	27.5 (5.0), 26.2 to 28.2
	BioRx+expro [†]	49	28.6 (6.0), 28.0 to 29.1
Joint pattern	MIT	27	27.5 (5.0), 26.9 to 27.9
	Pure aortic	33	27.5 (5.3), 25.9 to 29.0
	Polycystic	54	28.5 (6.2), 28.0 to 29.0
CRP	Normal	180	27.1 (5.6), 26.7 to 27.5
	Abnormal	347	28.8 (6.2), 28.2 to 29.5
Diastolic activity by cMPSA	Normal	13	26.1 (5.8), 25.1 to 27.1
	LDA	82	26.9 (4.7), 25.7 to 27.9
	MAIA	32	27.4 (5.6), 26.8 to 28.1
	PDA	29	29.1 (6.3), 28.7 to 29.7
QoL/Impact of disease	PMID 12, HES5	177	26.4 (4.4), 25.8 to 26.9
	PMID 12, HES5	177	26.4 (4.4), 25.8 to 26.9

PSaID 12, non-PASS 602 28.7 [6.1], 28.2; 29.2

*CVD/MET is defined as the presence or history of hypertension, coronary artery disease, cerebrovascular disease, hyperlipidaemia, diabetes, obesity, ≥ 25 TNG, ≥ 2 pure axial/peripheral osteoarthritis; ≥ 1 PSaID 12 PASS, 54, non-PASS: 4. BMI, body mass index; BSA, body surface area; (C)DASa, (clinical) Disease Activity in Psoriatic Arthritis; C, confidence interval; CRP, C-reactive protein; CVD, cardiovascular disease; HGA, high disease activity; HAQ-DI, Health Assessment Questionnaire - Disability Index; LDA, low disease activity; MET, metabolic syndrome; PASS, patient acceptable symptom state; PsA, psoriatic arthritis; PSaID, 12. RhoSole, RhoSole Impact of Disease 12; Clin. analysis of the S-D, standard deviation

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OP0008

SUSTAINED LOW DISEASE ACTIVITY AFTER WEIGHT LOSS TREATMENT IN PATIENTS WITH PSORIATIC ARTHRITIS AND OBESITY: A 12-MONTHS FOLLOW-UP

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Background: Obesity is over-represented in patients with psoriatic arthritis (PsA) and associated with increased disease activity. We have previously shown in 41 patients with PsA (Caspar criteria) and obesity (body mass index BMI ≥ 33 kg/m²) that weight loss treatment with Very Low Energy Liquid Diet (VLED), 640 kcal/day during 12-16 weeks, followed by a structured reintroduction of an energy restricted diet resulted in a median weight loss of 18.6% and concomitantly a significant improvement of the disease activity in joints, entheses and skin. At 6-months follow-up Psoriatic Arthritis Response Criteria (PsARC) was reached by 46.3% and American College of Rheumatology (ACR) 20, 50, 70 criteria for treatment response by 51.2%, 34.1% and 7.3% of the patients.

Objectives: To study the effects of the weight loss treatment on disease activity in longer term (12 months) in patients with PsA and obesity, when the patients are on a weight loss maintenance diet.

Methods: The patients were assessed with 66/68 joints count, Leeds enthesitis index, body surface area (BSA), questionnaires, CRP and BMI at the 12-months follow-up.

Results: Totally 39 PsA patients, median age 56 (IQR 49-63) years, 64% women were examined at the 12-month follow-up. The median weight reduction since baseline was 16.1 kg (IQR 10.5–22.8) or 16.0% (10.5–22.4). A majority of the disease activity parameters remained significantly improved (Table). At the 12-month follow-up PsARC was still fulfilled by 35.9% (n=14) and ACR 20, 50, 70 response criteria by 53.8% (n=21), 35.9% (n=14) and 15.5% (n=6) respectively.