Table 1. IRs of SI in RA and PsA patients starting a TNFi Jan 2009 – Dec 2018. HRs for PsA compared to RA.

	RA (1780 treatment courses)			PsA (1400 treatment courses)			HR (95% CI)
	SI, n	PYR	IR (95% CI)	SI, n	PYR	IR (95% CI)	
Serological status	64	1743	3.67	-	-	-	-
RA	60	1362	(2.87, 4.69)	-	-	-	-
Seropositive			4.40				
Seronegative			(3.42, 5.67)				

*DAS28-CRP < 2.6 = remission, PYR; Patient years at risk, MTX; Methotrexate, IR; Incidence rate

Figure 1. Age- and gender-adjusted risk of SI across RA and PsA

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AB0761

DEMOGRAPHIC AND CLINICAL FEATURES OF JUVENILE-ONSET PSORIATIC ARTHRITIS: RESULTS FROM PSART-ID REGISTRY

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Background: Although psoriatic arthritis (PsA) may be seen at any decades, juvenile onset PsA is relatively rare. Moreover, there were no more data about clinical features, treatments, and course in juvenile PsA when they reached to adult age.

Objectives: The objective of this study was to assess and compare demographic and clinical features for juvenile onset PsA and adult onset PsA.

Methods: PsART-ID is a multicenter, international database, investigating the disease characteristic in real life (1). Briefly, demographic data, PsA subtypes,

uveitis, enthesitis, dactylitis, Co-morbidities, disease activity scores (TJC, SJC, VAS-pain, VAS patients and physician global assessments, VAS-fatigue, BASDAI), and functional status (HAQ-DI, BASFI) were recorded. Psoriasis and PsA starting age were noted, as well. Patients were classified as juvenile PsA or juvenile PsO (under 18 years old). Results were compared regarding to juvenile versus adult onset age.

Results: Overall, 1644 PsA patients were included to study, 301/1644 (18.3%) patients had juvenile onset psoriasis. Of 39/1644 (2.4%) patients had juvenile onset PsA, as well. As expected, juvenile onset PsA patients were younger, however PsA disease duration were longer than adult onset PsA patients. There were no any difference between demographic and clinical data, except BMI and enthesitis were less frequently at the juvenile onset PsA groups. Although, ever csDMARD using were similar between two groups, however, juvenile onset PsA patients were used more frequently bDMARDs.

Table. Comparison of demographic and clinical characteristics of juvenile and adult-onset psoriatic arthritis

	Juvenile onset	Adult onset	p
N (%)	39 (2.4)	1605 (97.6)	
Female Sex n (%)	24 (61.5)	1006 (62.7)	0.884
PsA beginning age mean (SD)	13.3 ± 3.85	42.3 ± 12.9	<0.001
Current age mean (SD)	26.6 ± 10.7	47.3 ± 13.07	<0.001
Duration of psoriasis (years)	17.10 ± 11.26	14.75 ± 11.78	0.124
Duration of psoriatic arthritis (years)	13.5 ± 11	5.06 ± 6.7	<0.001
Cigarette smoking (ever) n (%)	15/38	641/1494	0.72
Education duration/year (mean,SD)	10.09 ± 3.67	9.52 ± 4.81	0.464
BMI (kg/m2) (mean, SD)	24.5 ± 5.1	28.3 ± 5.21	<0.001
Family history of PsO/PsA n (%)	15 (38.5)	559 (34.9)	0.642
Nail involvement n (%)	18 (46.2)	762 (47.5)	0.864
Dactylitis n (%)	9 (23.7)	367 (24)	0.958
Entesitis n (%)	3 (7.9)	384 (25.7)	0.013
Uveitis n (%)	-	13 (4.3)	0.713
Axial involvement (%)	15 (38.5)	464 (29)	0.199
Methotrexate	36 (92.3)	1348 (84)	0.162
Sulfasalazine	17 (43.6)	612 (38.1)	0.488
Leflunomide	14 (35.9)	379 (23.6)	0.076
Biologic DMARDs	102 (33.9)	358 (26.8)	0.013

Conclusion: Although psoriasis may be seen frequently in the juvenile age, juvenile onset PsA was not so frequent in our PsA cohort. Although, ever csDMARD using were similar between two groups, however, juvenile onset PsA patients were used bDMARDs more frequently.

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AB0762

METABOLIC SYNDROME IN EGYPTIAN PSORIATIC ARTHRITIS PATIENTS.

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Background: Psoriatic arthritis (PsA) is a chronic inflammatory arthritis affecting 20:30% of patients with skin Psoriasis (PsO). It is strongly associated with obesity, particularly excess visceral adiposity, which leads to insulin resistance, hyperglycemia, dyslipidemia, and hypertension (HTN).

All the previous findings are grouped in Metabolic Syndrome (MetS) which increase the risk of development of Type 2 diabetes mellitus (T2DM) by five folds and cardiovascular disease (CVD) by two folds.

Objectives: The aim of this work was to define those who fulfill MetS criteria in PsA patients thus of greater risk to develop CVD and T2DM.

Methods: Fifty PsA patients diagnosed according to the CASPAR criteria and 50 matched healthy controls were included in this study.

All patients were subjected to thorough clinical evaluation of the musculoskeletal system. The disease activity was assessed by DAPSA and BASDAI. Skin severity was assessed by the PASI. Disability assessment was done by the HAQ-DI. Laboratory investigations included: CRP, uric acid and diabetic profile (including HOMA-IR) and lipid profile in patients and control subjects.

Subjects were defined as having MetS according to International Diabetes Federation (IDF) criteria:

Abdominal obesity was measured by Waist circumference (WC) for Egyptian cut-offs values (WC>100.5cm in men and >96.25cm in women). The subjects must have central obesity to identify MetS plus any two of the following four factors:

- 1) Raised triglycerides level (TG) ≥ 150 mg/dL or on specific treatment.
- 2) Reduced levels of high-density lipoprotein cholesterol (HDL <40 mg/dL in males and <50 mg/dL in females or on specific treatment.
- 3) HTN: (systolic: ≥ 130 mm Hg or diastolic: ≥ 85 mm Hg) or on treatment for HTN.
- 4) Raised fasting glucose levels (≥ 100 mg/dL), or previously diagnosed T2DM.

Results: Metabolic syndrome was significantly higher among PsA patients than control group (42% Vs 16% respectively).

Regarding frequency of MetS components, obesity was the highest component among PsA patients (62%) as illustrated in Figure 1.

CRP mean level was significantly higher in PsA patients compared to control group with $p < 0.001$. CRP serum level showed a positive significant correlation with DAPSA score and HOMA-IR ($P = 0.031$, 0.002 respectively).

Correlations between MetS components and (disease activity, skin severity and physical function) are shown in Table 1.

Conclusion:

1- There is high frequency of MetS in PsA patients compared to control group.

2- Obesity and DMT2 were the most common components of MetS.

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Psoriatic Arthritis		Metabolic syndrome							
		WC	BMI	TG	HDL	FBS	HOMA-IR	Systolic BP	Diastolic BP
DAPSA	r	-0.233	0.081	0.086	-0.116	0.263	0.387	0.136	-0.170
	P	0.308	0.728	0.710	0.616	0.250	0.083	0.557	0.462
BASDAI	r	0.798*	0.152	0.060	-0.110	-0.424	-0.294	0.168	-0.027
	P	<0.001*	0.509	0.798	0.636	0.055	0.196	0.467	0.906
PASI	r	0.435*	0.226	0.363	-0.521*	-0.276	-0.253	-0.054	-0.060
	P	0.049*	0.324	0.106	0.015*	0.227	0.268	0.818	0.795
HAQ-DI	r	0.189	0.176	0.168	-0.286	-0.240	-0.184	-0.343	-0.276
	P	0.413	0.445	0.466	0.209	0.295	0.424	0.128	0.225

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AB0763

THE INFLUENCE OF OBESITY ON BIOLOGICAL DMARD TREATMENT RESPONSE IN PSORIATIC ARTHRITIS: HUR-BIO REAL LIFE RESULTS

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Background: Obesity could be a risk factor for response to treatment and disease severity in psoriatic arthritis (PsA) because of potential pro-inflammatory effects of cytokines produced by adipose tissue (1).

Objectives: This study aimed to assess association of demographic, clinical and disease activity indices with obesity in patients using biological disease-modifying antirheumatic drugs (bDMARD) treatment in HUR-BIO cohort.

Methods: HUR-BIO (Hacettepe University Rheumatology Biologic Registry) is a prospective, single center database of biological treatments since 2005. Until January 2020, HUR-BIO PsA registry enrolled 469 patients. Demographic, clinical, laboratory, therapeutic data were collected from this database which including tender/swollen joint counts, Erythrocyte Sedimentation Rate (ESR), C-Reactive Protein (CRP), Health Assessment Questionnaire (HAQ), Bath Ankylosing Spondylitis Disease Activity Index (BASDAI), Disease Activity Score - 28 joint (DAS28), Disease Activity Index for Psoriatic Arthritis - 28 joint score (DAPSA-28), Psoriatic Arthritis Impact of Disease 12-item questionnaire (PSAID-12). BMI ≥ 30 was defined as obesity.

Results: HUR-BIO PsA had 469 PsA patients and 441 patients with available BMI data were enrolled. Overall, 187/441 patients (42%) had obesity. The median follow-up period of obese and non-obese PsA patients was 7 (3-12) and 8 (4-12) years, respectively ($p: 0.31$). Obese patients were older at the age of PsA diagnosis (43 (33 - 53) vs 36 (28 - 45) years, $p < 0.001$), higher female gender (76% vs 64%, $p: 0.008$), higher comorbidities (53% vs 27%, $p < 0.001$). While there was no difference between the two groups in uveitis, IBD, family history and smoking; HLA-B27 was higher in non-obese patients (table). DAS28, BASDAI, DAPSA-28 joints, PSAID-12 were higher in the obese group than in the non-obese group, both before the biological DMARD and at the last visit ($p < 0.05$) (figure 1). BASDAI50% response were similar and patients with HAQ score < 0.5 were less frequently in obese patients. For obese and non-obese PsA patients, first bDMARDs percentages were adalimumab 46 vs 48, etanercept 18.2 vs 17, infliximab 14 vs 18, golimumab 7 vs 7.5, certolizumab 12 vs 7, secukinumab 1 vs 0.5, ustekinumab 1 vs 1, others 1 vs 1%, respectively and were similar ($p: 0.72$). Retention rate for first bDMARD was higher in non-obese than obese patients. Median of the retention rate of bDMARD in obese and non-obese groups was 54.2 and 79, respectively (log rank $p: 0.03$) (figure 2).

Conclusion: Obesity was associated with higher disease activity and poorer effect of bDMARD treatment in patients with PsA. In obese PsA patients with high disease activity despite bDMARD therapy, intentional weight loss may be recommended as an adjunctive therapy.

References:

- [1] Klingberg E, Bilberg A, Björkman S et al. Weight loss improves disease activity in patients with psoriatic arthritis and obesity: an interventional study. *Arthritis research & therapy*, 2019, 21.1: 17.

Table. Baseline and last visit demographic, clinical and disease activity by BMI categories

	BMI ≥ 30	BMI < 30	p-value
Age at PsA, years, median (Q1-Q3)	43 (33-53.5)	36 (28-45)	0.000*
Disease duration, years, median (Q1-Q3)	7 (3-12)	8 (4-12)	0.31
Gender (male/female, %)	24/76	36/64	0.008*
Smoking Ever n, %	102 (54.8)	159 (62.8)	0.091
HLA B-27 (+) n, (%)	7 (14)	32 (35)	0.006*
Uveitis n, %	4 (2.2)	6 (2.4)	0.571
IBD n, %	4 (2.1)	6 (2.4)	0.567
PsA/Pso Family history n, %	74 (39.6)	84 (33.2)	0.169
Taking steroids before biological drugs n, %	115 (61.5)	156 (61.7)	0.972
BASDAI50% response n, %	35 (31.8)	61 (41)	0.13
Last HAQ score < 0.5 n, %	91 (52.3)	160 (68.1)	0.001*