Background: Psoriatic arthritis (PsA) is a chronic inflammatory arthritis associated with comorbidities like obesity, metabolic syndrome, and cardiovascular disease. Adipose tissue leads to a pro-inflammatory status in obese subjects. For this reason, central obesity may determine a worsening in both disability index or quality of life in PsA patients treated with biologic agents.

Objectives: Our study aimed to evaluate the relationship between central obesity and disability index or the impact of the disease on quality of life in a real-world sample of PsA patients.

Methods: A cross-sectional study was conducted. Patients with PsA were enrolled at the PsA clinic at the ARNAS Civico in Palermo (Italy) from March 2018 to December 2019. Clinical, pharmacological, anthropometric, laboratoristic variables, and patient-reported outcomes, including the Health Assessment Questionnaire (HAQ) and Psoriatic Arthritis Impact of Disease (PSAID) were evaluated. STATA 14.1 was used to perform statistical analysis.

Results: A total of 143 outpatients aged 55.6 (47.7-63.7) affected by PsA, according to CASPAR criteria, were consecutively evaluated. The average years of illness were 10.8 (9.5-12.1). Patients were treated with biological therapy (81.3%), DMARDs (41.6%), small molecules (9.9%), or their combinations. Both sexes were equally represented. 71.9% of enrolled patients had central obesity (64.9% men and 78.1% women) with an average waist circumference of 104.2 (101.8 - 106.6) for women and 103.6 (100.0 - 107.2) for men. Average HAQ was 1.05 (0.92 - 1.19), and data analysis showed 50.3% of patients with normal-mild functional disability, 30.1% moderate to severe disability, and 19.6% severe to very severe disability [Fig 1]. 51.7% of the sample had a high impact of the disease on life, according to the PSAID questionnaire [Fig 2]. A strong association was observed between functional disability measured by HAQ >2 and central obesity [OR (95% CI) 16.94 (2.22 - 129.48); $p < 0.006$]. Moreover, data analysis showed an association between high impact of disease on life (PSAID >4) and central obesity [OR (95% CI) 3.33 (1.56 - 7.13); $p < 0.002$].

Fig 1. Functional disability on PsA patients

IMPACT OF DISEASE ON LIFE (PSAID)

Fig 2. Impact of disease on PsA patients quality of life

Conclusion: Our study demonstrated a high association between functional disability studied subjectively using the HAQ, the impact of the disease on patients' quality of life using PSAID, and central obesity in Sicilian outpatients affected by PsA. Data suggest that therapeutic goals should not be focused on treatment but also on waist circumference reduction in order to reduce inflammation and improve patients' functional ability and quality of life.

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FACTORS ASSOCIATED WITH PERIPHERAL EROSION RADIOGRAPHIC DISEASE IN A CONSECUTIVE SERIES OF 794 PSA PATIENTS

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Background: Few studies have examined the correlation between clinical demographic and laboratory parameters with peripheral radiological erosive disease in PsA pts.

Objectives: To examine the association between clinical, demographical and laboratory data and the presence of radiographic erosions (RE) in the peripheral joints of psoriatic arthritis (PsA) pts.

Methods: A cross-sectional study was conducted in consecutive patients with PsA afferring 7 rheumatological Italian tertiary care centers. Demographical, clinical, laboratory and imaging data were collected according to a standardized protocol. A patient was considered as affected by erosive disease (ED) if at least one joint presented radiographic erosions at hand and/or feet rx examination. Patients with ED at early rx examination (before 5 y from disease diagnosis) were considered as early ED (EED) pts and pts without ED at 6 y or more rx examination from disease diagnosis were considered as not EED (NEED). The association between the presence of joint erosions and demographical, clinical and laboratory data was assessed using logistic regression analysis. The results were expressed in terms odds ratios (OR), and 95% confidence intervals (CI).

Results: Rx hand and feet examination were available for analysis in 492/794 (39.9 % females, mean age 53.3 ± 13.2 y, mean PsA duration 16.9 ± 16.8 y, ED 171 pts). 48 pts had EED and 133 pts had NEED. At univariate analyses factors significantly associated with EED ($p < 0.20$) were PsA duration (OR=0.979, 95%CI 0.953-1.006, $p = 0.119$), diagnostic delay (OR=1.077, 95%CI 1.018-1.138, $p = 0.009$), history of peripheral enthesitis (OR=2.308, 95%CI 0.904-5.888, $p = 0.080$), hypertriglyceridemia (OR=2.756, 95%CI 0.997-7.618, $p = 0.051$), hypercholesterolemia (OR=1.687, 95%CI 0.777-3.661, $p = 0.186$), hyperuricemia (OR=0.450, 95%CI 0.174-1.166, $p = 0.10$), use of biological agents (OR=1.712, 95%CI 0.873-3.355, $p=0.118$). Factors significantly associated with EED at multivariate regression analyses were diagnostic delay (OR = 1.11, 95% CI: 1.01, 1.22), history of enthesitis (OR = 3.15, 95% CI: 1.23, 8.22), use of therapy with biological agents (OR = 3.60, 95% CI: 1.31, 9.85) with protective effect of hyperuricemia (OR = 0.25, 95% CI: 0.07, 0.90).

Conclusion: The presence of EED in a group of consecutive PsA patients is correlated to diagnostic delay and history of enthesitis. Longitudinal study may confirm these associations.

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FRI0351

DOES SEX OR BODY MASS INDEX IMPACT RESPONSE TO THERAPY IN PSORIATIC ARTHRITIS?: RESULTS FROM A PHASE 3, DOUBLE-BLIND, RANDOMIZED TRIAL EXAMINING METHOTREXATE AND ETANERCEPT AS MONOTHERAPY OR IN COMBINATION FOR TREATING PSORIATIC ARTHRITIS

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Background: In psoriatic arthritis (PsA), contextual factors such as sex and body mass index (BMI) may affect response to therapy.

Objectives: To examine if sex and BMI influenced 24-week (wk) outcomes in a 48-wk PsA trial of methotrexate (MTX) and etanercept (ETN) as monotherapy (mono) or combined.¹

Methods: MTX- and biologic-naïve adult patients with active PsA were randomized to weekly: MTX 20mg (n=284), ETN 50mg (n=284), or MTX 20mg+ETN 50mg (n=283). Wk-24 outcomes included ACR 20, MDA, VLDA, PASDAS, DAPSA, LDI, SPARCC, BSA, sPGA, and mNAPSI. Descriptive statistics examined outcomes in each treatment arm by sex (male vs female) or BMI ($\leq 30\text{kg/m}^2$ vs $>30\text{kg/m}^2$). Modeling analyses also examined sex or BMI effect on outcomes when comparing MTX mono to the ETN-containing arms (analyses were adjusted for any prior use of a nonbiologic disease-modifying antirheumatic drug; the model for the influence of sex also adjusted for baseline BMI status). Nominal P-values are provided.

Results: Baseline disease activity was slightly higher in women, especially with MTX+ETN. Descriptive statistics showed men and women had similar results at wk 24 in the MTX mono and ETN mono arms; with MTX+ETN, men had better outcomes for ACR20, MDA, VLDA, and PASDAS. In treatment-interaction analyses, men had more favorable responses at wk 24 with MTX+ETN vs MTX mono for PASDAS, MDA, and LDI (Table).

Baseline disease activity was similar in both BMI categories. Descriptive statistics in each treatment arm showed no consistent differences in results at wk 24 between BMI categories. In treatment-interaction analyses, BMI $\leq 30\text{kg/m}^2$ had a more favorable response at wk 24 with MTX+ETN vs MTX mono for sPGA (Table).

Conclusion: Results suggest contextual factors may affect response to therapy in PsA. The treatment-interaction analyses suggest disparate responses to MTX+ETN by sex; BMI only affected skin response.

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FRI0352

PROBABILITY OF ACHIEVING LOW DISEASE ACTIVITY OR REMISSION WITH APREMILAST TREATMENT AMONG DMARD-NAIVE SUBJECTS WITH ACTIVE PSORIATIC ARTHRITIS

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Table. Week 24 Treatment-Interaction Outcomes Adjusted by Sex and BMI

	MTX Mono			ETN Mono			MTX+ETN		
Adjusted by Sex ^a	Male	Female	Male vs Female	Male	Female	Male vs Female	Male	Female	Male vs Female
PASDAS ^b (Full Analysis Set)	-1.80 (0.17)	-1.95 (0.15)	0.15 (0.21)	-2.45 (0.15)	-2.59 (0.16)	0.13 (0.20) P=0.96 ^c	-2.87 (0.15)	-2.14 (0.16)	-0.74 (0.20) P=0.002 ^c
MDA ^d (Full Analysis Set)	0.23 (0.04)	0.19 (0.03)	0.04 (0.05)	0.34 (0.04)	0.31 (0.04)	0.03 (0.06) P=0.86 ^c	0.42 (0.04)	0.22 (0.04)	0.21 (0.05) P=0.02 ^c
LDI ^e (LDI Analysis Set)	-186.67 (37.69)	-70.17 (34.51)	-116.51 (46.64)	-120.15 (34.23)	-109.17 (37.07)	-10.98 (46.75) P=0.11 ^c	-85.80 (36.10)	-127.90 (34.82)	42.10 (47.05) P=0.017 ^c
Adjusted by BMI^a	$\leq 30\text{kg/m}^2$	$>30\text{kg/m}^2$	≤ 30 vs $>30\text{kg/m}^2$	$\leq 30\text{kg/m}^2$	$>30\text{kg/m}^2$	≤ 30 vs $>30\text{kg/m}^2$ P=0.75 ^c	$\leq 30\text{kg/m}^2$	$>30\text{kg/m}^2$	≤ 30 vs $>30\text{kg/m}^2$ P=0.05 ^c
sPGA of 0 or 1 ^d (Full Analysis Set of Patients With Baseline BSA $\geq 10\text{m}^2$)	0.49 (0.08)	0.58 (0.07)	-0.10 (0.10)	0.69 (0.07)	0.74 (0.07)	-0.05 (0.08)	0.81 (0.05)	0.64 (0.08)	0.17 (0.09) P=0.05 ^c

^aAdjusted for sex by treatment arm, prior nonbiologic DMARD use, and baseline BMI

^bLeast square estimate (SE) change from baseline at week 24

^cP-value is nominal and for comparison with MTX mono

^dAdjusted risk ratio (SE)

^eAdjusted for BMI by treatment arm and prior nonbiologic DMARD use

BMI, body mass index; BSA, body surface area; DMARD, disease-modifying antirheumatic drug; ETN, etanercept; LDI, Leeds Dactylitis Index; MDA, Minimal Disease Activity; Mono, monotherapy; MTX, methotrexate; PASDAS, Psoriatic Arthritis Disease Activity Score; SE, standard error; sPGA, static Physicians' Global Assessment