Conclusion: The results of this study establish that more than half of patients with PsA can remain in their initial biologic treatment over a long term. It has been observed that the choice of biologic treatment did not effect the drug survival in PsA.

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**SAT0424**

**OBSERVING LINKS TO PSORIATIC ARTHRITIS (PsA) ACTIVITY, HIGHER PREVALENCE OF CARDIO METABOLIC DISORDERS AND WORSE PATIENT REPORTED OUTCOMES (PROS): DATA FROM THE RUSSIAN PSA REGISTRY (RU-PSART)**

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Background: PsA patients (pts) have an increased risk of cardiovascular (CV) and metabolic (Met) disorders due to the combination of inflammation and increased prevalence of traditional CV risk factors. Only limited data are available on Russian PsA pts. Data was collected from 25 rheumatology clinics of the Russian Federation.

Objectives: to study, in clinical practice, the prevalence of obesity and its association with PsA activity, CV/Met comorbidities and PROs

Methods: 614 (MF=331(54%)/283(46%)) PsA pts fulfilling the CASPAR criteria were included from the RU-PSART cohort. Mean age 45.2±0.52 yrs, PsA duration 5.7±0.27 yrs, PsA duration 15.7±0.56 yrs, DAPSA 28.79±0.75. At baseline (BL) PsA activity was evaluated by Tender Joint Count (SJ68), Swollen Joint Count (SJ66), PGA, physician global assessment by Visual Analog Scale (VAS), DAPSA, PROs according to PtGAVAS, PtPainV, HAQ, Work Productivity and Activity Index (WPAI) and Body Mass Index (BMI, kg/m²) were calculated.

Results: At BL the BMI was 27.7±0.23 kg/m² with the following BMI categories: normal - 213 pts (34.7%), overweight - 214 pts (34.8%) and obese - 187 (30.5%). Increased BMI was observed in 65.3% of PsA pts. In all groups, comorbidities were found in 297 out of 614 pts (48%): arterial hypertension in 190 (31%), diabetes mellitus in 144 (23.1%), obesity requiring a change of pts’ lifestyle, pts. Obesity was associated with higher PsA activity, more prevalence of CV/Met disorders and worse PROs. Obesity requires a change in the pts’ lifestyle, nutrition correction and a right choice of therapy.

Conclusion: In clinical practice, BMI increase was found in the majority of PsA pts. Obesity was associated with higher PsA activity, more prevalence of CV/Met disorders and worse PROs. Obesity requires a change in the pts’ lifestyle, nutrition correction and a right choice of therapy.

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**SAT0425**

**NOVEL COMPUTER-ASSISTED METHODOLOGY FOR QUANTITATIVE ASSESSMENT OF MRI TREATMENT RESPONSES TO APRAILMEST IN PATIENTS WITH PSORIATIC ARTHRITIS**

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Background: Response to treatment in psoriatic arthritis (PsA) can be captured using the OMERACT PsA Magnetic Resonance Imaging Score (PsAMRIS). While reliable and valid, PsAMRIS interpretation requires a trained reader to assess inflammatory lesions such as synovitis and flexor tenosynovitis on a discrete scale ranging from 0 to 3, which might not have sufficient sensitivity to capture early and subtle changes in inflammation in small cohorts.

Methods: In PSO-ART, the 1166 PsA patients (pts) fulfilling the CASPAR criteria were included from the RU-PSART. The independent assessors were 15 rheumatologists (7 female, 8 male) who assessed the PsAMRIS images with a software tool (ImageJ) that allows pixel-based analysis of the images. The software tool was validated with phantom images. After the tool was validated, the independent assessors were trained using a learning cohort. The AUC values were calculated for the software tool and an experienced reader (specialist in MRI) from multiple receiver operating characteristic (ROC) analysis. The AUC values were compared using the Mann-Whitney U test.

Results: The AUC values for the software tool were 0.90 and 0.91 for the learning and testing cohort, respectively. The AUC values for the experienced reader were 0.82 and 0.83 for the learning and testing cohort, respectively. The AUC values were significantly higher for the software tool compared to the experienced reader (p < 0.01). The software tool was found to be reliable and valid for the quantitative assessment of MRI treatment responses in patients with PsA.