worsening. The mean change in each measure by patient-reported response (improved, stayed the same, or worsened) are shown in Figures 1A & B. In general, the mean score increased from 'improved' to 'worsened' as expected (with the exception of PROMIS PH which declines given a different direction of scoring). The MCII for each measure was as follows: RAPID3 -1.8 (-4.1 to 0.5), Patient Global -0.6 (-1.6 to 0.4), Physician Global -1 (-1.9 to -0.1), cDAPSA -5.7 (-9.8 to -1.7), and PROMIS PH 1.9 (-2.1 to 5.8). Correlation for each measure with the global assessment of response were: RAPID3 0.48, Patient Global 0.37, Physician Global 0.39, cDAPSA 0.51, and PROMIS PH 0.39.

Figure 1 A. Distribution of change (median, IQR) in RAPID3, Physician Global, Patient Global, PROMIS10a physical therapy by patient reported response.

Conclusion: This is the first study to test thresholds of meaning for these particular measures in PsA. The MCII values are relatively low for all outcome measures. This may be related to the relatively low disease activity at baseline but is consistent with patients seen in clinical practice initiating therapy.²

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Figure 2 B. Distribution of change (median, IQR) in clinical DAPSA by patient reported response.

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SAT0435 SECUKINUMAB EFFICACY IN PSA PATIENTS IS DEPENDENT ON PATIENTS' BODY MASS INDEX

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Background: Psoriatic arthritis (PsA) is a chronic inflammatory arthritis burdened by a series of metabolic comorbidities. Among them, obesity is very common in PsA, with a prevalence of 27%, as confirmed by a recent Spanish work (1). Obesity in PsA has been associated with higher disease activity and a worse effectiveness of biologic treatment in PsA. This has been certainly proven for anti-TNF- α as demonstrated by different studies reporting, in obese patients, a reduced treatment response and adherence. In particular, results coming from DAN-BIO and ICE-BIO registries, (2) point out that obesity is a risk factor for anti-TNF withdrawal due to poor response. Although a recent multi-centric, retrospective study in Spain has shown that obese subjects with psoriasis have a poor therapeutic response to secukinumab, (3) no data are currently available for secukinumab in PsA obese patients.

Objectives: Our studies focused on the relationship between BMI and clinical response to secukinumab in PsA.

Methods: We, retrospectively, analysed clinical data of 100 patients with PsA (57% female, median age 53 (49.2-55 years)) satisfying CASPAR criteria (4) for PsA, afferent to our clinic, who were treated with secukinumab. Patients were divided into 2 groups based on BMI (BMI<25 normal weight and BMI $\geq$ 25 overweight/obese).

Results: In the normal weight group 75% were female, median age was 50.5 (41-54.6), median BMI was 22 (20.2-23.3) and median DAPSA was 19.19 (15.6-24.2). The features of the overweight/obese patients were similar to the normal weight group (48% were female, median age 54 (50-59), median BMI 29 (27.4-30.1) and median DAPSA 21.2 (19-24.4)). Clinical response to therapy, evaluated as the achievement of low disease activity or remission according to DAPSA, was recorded 6 months after starting treatment. After 6 months of treatment, the variation of the DAPSA was inversely related to BMI: overweight/obese patients had in fact a better response to secukinumab compared to normal weight patients. By using a correlation coefficient (SPSS), to analyze the degree of association between BMI and DAPSA, we observed that BMI and DAPSA are inversely related in our PsA patients ($p=0.05$). Interestingly, analysis of serum levels of IL-17 in 20 obese patients compared to 20 non-obese patients, showed significantly higher serum levels of IL-17 in the former (Figure 1), indicating IL-17 as a key cytokine driving inflammation in PsA obese patients.

Conclusion: These are the first data about clinical response to secukinumab in obese PsA patients. Our results support the relevance of IL-17 in driving systemic inflammation in obese PsA patients, also providing evidence that obese patients may have a better response to secukinumab compared to non-obese patients. Interestingly, this effect was not

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