

# **Impact of Patient Global Assessment in Rheumatoid Arthritis patients medicated with conventional synthetic disease-modifying antirheumatic drugs and biologic disease-modifying antirheumatic drugs.**

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## **Abstract:**

**Introduction:** The advent of biologic agents changed the treatment paradigm in Rheumatoid Arthritis (RA). These agents are highly effective and significantly improve disease activity measured by Disease Activity Score in 28 Joints (DAS 28) that included objective variables like swollen joints (SJ), erythrocyte sedimentation rate (ESR) and C-reactive protein (CRP). However, patient global assessment (PGA), included in DAS 28 4V score, is not always improved in a parallel way. Physicians and patients have different ways to evaluate the benefits of a treatment intervention and this can be explained by the discordance between PGA and disease activity.

The aim of this study is analysing the impact of PGA addition to DAS 28 score in RA patients, treated with conventional synthetic disease-modifying antirheumatic drugs (csDMARDs) and biologic disease-modifying antirheumatic drugs (bDMARDs).

**Methods:** One hundred and twenty-seven consecutive RA patients followed in Rheumatology department were enrolled. Sociodemographic (gender, age) and clinical data (mean disease duration, rheumatoid factor (RF), anti-cyclic citrullinated peptide (anti-CCP) antibodies, erosions, DAS 28 3V CRP and DAS 28 4V CRP) were collected. Patients were divided into 2 groups according RA treatment: first, those patients treated with csDMARDs – csDMARDs group and, second, patients treated with bDMARDs – bDMARDs group.

A t test for independent samples was used to compare difference between DAS 28 3V CRP and DAS 28 4V CRP in csDMARDs and bDMARDs groups. A  $p \leq 0.05$  was considered statistically significant.

**Results:** One hundred and twenty-seven patients were included. Seventy-five (62%) patients were in csDMARDs group and 46 (38%) in bDMARD group. Sociodemographic and clinical data in csDMARDs group and bDMARDs group were the followings, respectively: most patients were female (80% vs 73.9%), mean age was  $57.3 \pm 13.7$  years vs  $58.43 \pm 11.3$  and mean disease duration was  $11.8 \pm 12.6$  years vs  $14.8 \pm 9.0$  years. Rheumatoid factor was positive in 41 (58.6%) vs 29 (65.9%) patients and anti-CCP in 51 (73.9%) vs 31 (72.1%) patients. Erosions were presented in 14 (18.7%) vs 27 (64.3%) patients.

The difference between DAS28 3V score and DAS 28 4V are higher in patients treated with bDMARDs than patients treated with csDMARDs ( $p=0.003$ ).

**Discussion and Conclusions:**

The impact of PGA addition to DAS 28 score in RA patients was higher in patients with bDMARDs treatment than patients with cDMARDs. The addition of a biological treatment can lead to clinical improvement but not reflect a change in the patient's perception of his illness.

Further studies examining specific aspects such as anxiety, depression, fatigue and treatment-related adverse events should be addressed to make conclusions about the importance of PGA in daily practice.

ACCEPTED EXTENDED ABSTRACT