Association between the presence of anti-citrullinated peptide antibodies and disease activity measured by DAS28 in a cohort of 260 patients with rheumatoid arthritis

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Background: Rheumatoid arthritis (RA) is a systemic autoimmune disease of unknown and multi-factorial etiology, whose prevalence is around 1% of the adult population. Anti-citrullinated peptide antibodies (ACPA) are the most specific serological markers of RA, with a specificity of 98-99% in some studies. The presence of auto-antibodies such as rheumatoid factor (RF) and ACPA is related to more severe structural damage and joint destruction during disease progression.

Objectives: To assess whether the presence of ACPA is associated with higher levels of disease activity score (DAS 28) in a sample of patients with RA.

Methods: We performed a descriptive study of a cohort of patients from Valme Hospital diagnosed with RA. Patients were identified from an electronic database. Demographic data, immunological profile (presence of RF and/or ACPA), treatment (DMARDs or biological therapy) and disease activity measured by DAS 28 were collected transversely.

Results: Two hundred and sixty RA patients were included, current average age of 58.5 years, 72% were women and 48% were receiving biological therapy. Regarding serological markers, 61% were ACPA positive, 65% were RF positive and 54.3% were ACPA and RF positive. Mean DAS28 was 2.6 for RF and ACPA negative patients, compared to 2.8 for patients that showed positivity for one or both auto-antibodies, without statistically significant difference. With respect to the sub-group of patients receiving biological treatment (n=122), no significant difference of the mean value of DAS28 was seen (regarding to the presence/absence of ACPA): DAS28 2.53 for ACPA positive versus 2.52 for ACPA negative.

Conclusions: The presence of ACPA in RA patients has been traditionally considered a predictor of radiographic progression and higher clinical activity. But recently, new studies suggest that, although ACPA positivity does maintain relationship with structural damage, there is no association with the severity of clinical activity measured by DAS28. In line with these results, in our population of RA we found no relationship between the presence of ACPA and/or RF and disease activity, but it should be noted that the present is a cross-sectional study, so further prospective studies will be needed to elucidate this point.

Biography
Sergio A. Rodríguez Montero, graduated in Medicine and Surgery from the University of Seville, Spain. He received the title of specialist in Rheumatology in 2005, made his specialty in the Hospital Universitario Virgen del Rocío, Seville. He currently works in the Rheumatology Unit, University Hospital of Valme, Seville. He is the author of several articles in journals of national and international rheumatology.

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