FRI0330

BODY MASS INDEX AND DISEASE ACTIVITY IN CHRONIC INFLAMMATORY RHEUMATIC DISEASES: RESULTS OF THE CARDIOVASCULAR IN RHEUMATOLOGY (CARMA) PROJECT

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Objectives: Since obesity has been associated with higher inflammatory burden and worse response to therapy in patients with chronic inflammatory joint diseases (CIJDs), we aimed to confirm the potential association between body mass index (BMI) and disease activity in a large series of patients with CIJDs included in the Spanish Cardiovascular in rheumatology (CARMA) registry.

Methods: Baseline data assessment of patients included from the CARMA project, a 10-year prospective study of patients with rheumatoid arthritis (RA), ankylosing spondylitis (AS) and psoriatic arthritis (PsA) attending outpatient rheumatology clinics from 67 Spanish hospitals. Obesity was defined when BMI (kg/m²) was >30 according to the WHO criteria. Scores used to evaluate disease activity were DAS28 in RA, BASDAI in AS, and modified DAS for PsA.

Results: Data from 2,234 patients (775 RA, 738 AS and 721 PsA) were assessed. The mean±SD BMI at the baseline visit were: 26.9±4.8 in RA, 27.4±4.4 in AS and 28.2±4.7 in PsA. Multivariate analyses shown a positive association between BMI and disease activity in patients with RA (β-coefficient: 0.029; 95% CI: 0.01-0.05; p=0.007) and in those with PsA (β-coefficient: 0.036; 95% CI: 0.015-0.058; p=0.001). By contrast, there was no significant association between BMI and disease activity in patients with AS (β-coefficient: 0.001; 95% CI: -0.026-0.03; p=0.926).

In patients with RA, female gender (β-coefficient: 0.546; 95% CI: 0.316-0.775; p<0.001) and rheumatoid factor status (seropositivity for RF) (β-coefficient: 0.328; 95% CI: 0.106-0.549; p=0.004) also showed a positive association with disease activity, while physical activity revealed a negative association with disease activity (β-coefficient: -0.280; 95% CI: -0.479-(-0.081); p=0.006).

Besides BMI, female gender (β-coefficient: 0.720; 95% CI: 0.524-0.916; p<0.001), Psoriasis Area Severity Index (β-coefficient: 0.038; 95% CI: 0.012-0.066; p=0.005) and enthesitis (β-coefficient: 0.256; 95% CI: 0.199-0.313; p<0.001) were also positively associated with disease activity in PsA.

As observed in RA and PsA, female gender was also associated with disease activity patients with AS (β-coefficient: 0.565; 95% CI: 0.299-0.832; p<0.001).

Conclusion: BMI is associated with disease activity in RA and PsA but not in AS. Since obesity is a potentially modifiable factor, disease activity was associated with female gender and RF status in RA and with Psoriasis Area Severity Index and enthesitis in PsA. Adequate control over body weight may improve the outcome of patients with CIJDs and, therefore, weight control should be included in the strategy of management of these patients.

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COMPARISON OF THE THERAPEUTIC TRAJECTORIES OF PATIENTS WITH OLIGO AND POLYARTICULAR PSORIATIC ARTHRITIS. A REPORT FROM THE RHUMADATA® CLINICAL DATABASE AND REGISTRY

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Background: Psoriatic Arthritis (PsA) most frequently presents as a polyarthritis or (less often) as an oligoarthritis [1]. Most of the patients in the original description of Moll and Wight had an oligoarticular presentation [2]. However, other studies have not found the same distribution in all patient populations [3]. Treatment response over time across presentation types has not been explored thoroughly in recent medical literature.

Objectives: Using our proposed definition of oligo and polyarticular PsA status, based on the (rounded) mean of the first four available joint counts, we examine treatment sequences in each group.

Methods: Data from patients participating in the RHUMADATA® clinical database and registry diagnosed with PsA were extracted on January 5th, 2020. Joint count classification (oligo vs. poly) was assessed from the average of the first four available 66/68 joint counts. Patients were classified as having a polyarticular form of PsA if the (rounded) average, five or more of their joints were assessed as being swollen and/or tender. Subjects with four or less swollen or tender joints were classified as patients having oligoarticular PsA. Time spent treated with non-DMARDs, csDMARDs and bDMARDs, time to treatment (to csDMARDs and bDMARDs) and treatment selection were assessed from the entire PsA cohort. Continuous variables were tested using t-tests and binary variables using Fisher's exact test.

Results: The data from all patients diagnosed with PsA (n=1029) was extracted from the RHUMADATA® clinical database and registry. All but 151 (15%) were classifiable, 470 (46%) were classified as oligoarticular PsA patients and 408 (39%) as polyarticular. Time from the first symptoms to the first clinic visit was 4.6 ± 6.5 years and 3.7 ± 6.6 (p-value=0.1311) years for the patients classified as oligo and poly respectively. A total of 951 patients were treated with a csDMARD (144 of those could not be classified as oligo or poly). For those, time from diagnosis to first csDMARD (prior to any bDMARD) treatment was 1.7 ± 5.3 (oligo) years and 2.0 ± 7.0 (poly) years (p-value=0.4114). Methotrexate (MTX), hydroxychloroquine (HCQ) and leflunomide (LEF) were more frequently prescribed to polyarticular than oligoarticular PsA patients (MTX: 70% (poly) vs. 48% (oligo), p-value<.0001, HCQ: 41% vs. 25%, p-value <.0001, LEF: 17% vs. 8%, p-value<.0001, Sulfasalazine (SSZ): 17% vs. 19%, p-value=0.5232, Other csDMARDs: 5% vs. 4.5%, p-value=0.8688). A total of 648 patients were treated with a bDMARD (151 of those could not be classified as oligo or poly). For those, time from first csDMARD Rx to first bDMARD treatment was 6.3 ± 4.6 (oligo) years and 7.0 ± 4.7 years (p-value=0.0865). On average, over the entire treatment history, oligoarticular patients received 1.7 ± 1.2 biologic agents and polyarticular 2.0 ± 1.4, p-value=0.0110. bDMARDs were administered over 3.6 ± 3.6 years for oligo and 4.5 ± 3.9 years for poly, p-value=0.2122.

Conclusion: Polyarticular PsA patients appear to be more aggressively treated than oligoarticular patients during the csDMARDs period. Although durations on bDMARDs are statistically similar, polyarticular patients change biotreatment more frequently.

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EVALUATION OF THE INDIVIDUAL COMPONENTS OF ACR50+PASI100 AND MDA AT WEEK 24 FROM THE SPIRIT-H2H TRIAL COMPARING THE EFFICACY AND SAFETY OF IXE VERSUS ADA IN PATIENTS WITH PSA NAÏVE TO BDMARDS

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Background: Psoriatic arthritis (PsA) is a chronic systemic disease with manifestations affecting musculoskeletal and extra-articular domains. Treatment and assessment of response are therefore major challenges in routine clinical practice. Minimal disease activity (MDA) is a multidimensional endpoint that can define a treatment target¹. In SPIRIT-H2H², a head-to-head clinical trial comparing the efficacy and safety of ixekizumab (IXE) versus adalimumab (ADA), the percentage of patients simultaneously achieving American College of Rheumatology 50 (ACR50) and Psoriasis Area and Severity Index 100 (PASI100), was the primary endpoint in order to reflect improvement in two domains of PsA.

Objectives: To evaluate how individual components of the simultaneous achievement of ACR50 and PASI100 compare with those of MDA at week 24.

Methods: Patients with active PsA (defined as those with a tender joint count [TJC] $\geq 3/68$, a swollen joint count [SJC] $\geq 3/66$ and a body surface area [BSA] of active plaque psoriasis $\geq 3\%$) were randomised 1:1 to approved dosing (according to baseline psoriasis involvement) of IXE or ADA in SPIRIT-H2H, an open label, assessor-blinded study.

The proportion of patients meeting each criterion of the composite endpoints was calculated for the intent-to-treat (ITT, N=566) population and the population of MDA responders at Week 24 (N=235). Missing individual responses were imputed with non-responder status. Spidergrams were generated using SAS 9.4.

Results:

For both the overall ITT population and the MDA responders population, the use of PASI ≤ 1 or BSA $\leq 3\%$ in the skin-related component of the MDA contributed to the higher response rate relative to the PASI100 response. Thus, the PASI100 response is a more stringent endpoint. Proportions of responders are similar across MDA and ACR50+PASI100 individual components for HAQ and SJC. The high baseline TJC levels (mean TJC: IXE=19.1, ADA=21.3) as opposed to lower levels observed for baseline SJC (mean SJC: IXE=10.1, ADA=10.7) made MDA-TJC criterion (≤ 1) more difficult to achieve than the equivalent criterion of the ACR50+PASI100 endpoint.

MDA response: Patients need to fulfill 5 of the 7 criteria: TJC ≤ 1 , SJC ≤ 1 , PASI ≤ 1 or BSA $\leq 3\%$, Patient pain visual analogue scale (VAS) score ≤ 15 , Patient global VAS score ≤ 20 , Health Assessment Questionnaire Disability Index (HAQ-DI) ≤ 0.5 , tender entheses points (18) ≤ 1 .
ACR50 response: Patients need to report $\geq 50\%$ improvement in TJC and SJC and a $\geq 50\%$ improvement in at least 3 of the following: Patient pain VAS score, patient global VAS score, Physician global VAS score, HAQ-DI, high sensitivity CRP (hs-CRP).

N.B Nine pts with active PsO and BSA $\geq 3\%$ were assessed as PASI=0 at baseline, a medical inconsistency that was resolved using medical judgement. These patients were considered PASI100 responders if PASI=0 and BSA=0 at post baseline visits

Conclusion: Despite the differences in criteria definitions, there are consistent response patterns in the individual components of the simultaneous ACR50+PASI100 and MDA endpoints in particular for the peripheral arthritis domain.

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FRI0333

ACHIEVEMENT OF VERY LOW DISEASE ACTIVITY AND REMISSION TREATMENT TARGETS IS ASSOCIATED WITH REDUCED RADIOGRAPHIC PROGRESSION IN PATIENTS WITH PSORIATIC ARTHRITIS TREATED WITH CERTOLIZUMAB PEGOL

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Background: Several disease activity measures and thresholds have been recommended as psoriatic arthritis (PsA) treatment targets, although consensus on the most appropriate assessment tool is lacking.¹ Reports suggest low disease activity (LDA) and remission may be associated with minimal structural progression in PsA.²