THE BATTLE OF THE SEXES IN RHEUMATOLOGY – A REAL-WORLD STUDY COMPARING GENDER DIFFERENCES IN PSORIATIC ARTHRITIS

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BACKGROUND

Psoriatic arthritis is an inflammatory disease that affects 20 to 30% of patients with psoriasis. It occurs equally in women and men, unlike axial spondyloarthritis, which shows a clear male predominance. It has been reported that females show an overall worse prognosis, with higher rates of treatment failure, and more fatigue and disability than men. The aim of this study is to determine whether gender influences diagnosis, treatment, and disease activity measures in psoriatic arthritis.

METHODS

Retrospective study that evaluated patients diagnosed with psoriatic arthritis, registered on the Portuguese national database (Reuma.pt) platform, evaluated at the start of their first bDMARD, and 12 months after. Demographic, clinical and laboratory data were evaluated. Comparison between groups (male vs. female) were performed using chi-square (categorical variables), t-test (continuous variables with normal distribution) and Mann–Whitney U (continuous variables with non-normal distribution). Differences between assessment measurements taken at 12 months relative to baseline were represented as delta.

RESULTS

A total of 81 patients were included in this study, 41 (50.6%) of which were female. There were no differences regarding age of diagnosis, age at the start of first bDMARD, years of disease at the start of first bDMARD, and exposure to glucocorticoids and glucocorticoid dosage at the start of first bDMARD between genders. At baseline, females showed a higher disease activity assessed by different measures, such as CDAI (22.5 ± 11.3 vs. 19.0 ± 8.9 , $p = 0.022$), SDAI (24.7 ± 11.3 vs. 19.9 ± 9.1 , $p = 0.022$), DAS4V-CRP (4.4 ± 1.2 vs. 3.6 ± 1.2 , $p = 0.004$), BASDAI (7.4 ± 1.5 vs. 6.7 ± 1.9 , $p = 0.002$), MASES (1 ± 5 vs. 0 ± 1 , $p = 0.027$), and DAPSA (37.3 ± 14.6 vs. 29.5 ± 15.2 , $p = 0.046$), with a borderline tendency to higher ASDAS (3.9 ± 11.2 vs. 3.5 ± 0.7 , $p = 0.051$). No differences were observed regarding erythrocyte sedimentation rate (ESR), C-reactive protein (CRP), physician/pain/patient visual analog scale, HAQ, BASMI and BASFI scores. Twelve months after starting bDMARD, female patients had a higher CDAI (8.6 ± 8.1 vs. 8.2 ± 6.6 , $p = 0.010$), SDAI (9.1 ± 8.0 vs. 8.4 ± 6.5 , $p = 0.006$), DAS4V-CRP (2.6 ± 1.1 vs. 2.3 ± 1.0 , $p = 0.004$), ESR (23.3 ± 22.4 vs. 11.9 ± 11.2 , $p < 0.001$), physician visual analog scale (26.5 ± 28.2 vs. 11.2 vs. 9.6 , $p = 0.034$), HAQ (1.25 ± 0.58 vs. 0.79 ± 0.93 , $p = 0.023$), BASDAI (3.9 ± 2.5 vs. 3.7 ± 2.3 , $p = 0.002$), ASDAS (2.4 ± 1.0 vs. 2.2 ± 0.7 , $p = 0.002$), MASES (2.5 ± 5 vs. 0 ± 1 , $p = 0.001$); interestingly, males showed higher DAPSA scores (15.9 ± 11.1 vs. 15.6 ± 12.6 , $p = 0.027$). No differences were observed regarding BASDAI50, ASAS20/40/70, ACR20/50/70 and PsARC responses. Females had a higher rate of treatment switch, with a median switch 0.5 ± 1 vs. 0 ± 0 observed in males ($p = 0.017$).

CONCLUSION

In this cohort, there is a marked gender difference in psoriatic arthritis, with women exhibiting higher disease activity, disability, and treatment failure when compared to men. This study highlights the potential role of gender in several outcomes in psoriatic arthritis.

KEYWORDS

Psoriatic arthritis, Gender, Disease activity, bDMARD.