OBSERVING THE DETERMINANTS OF RADIOGRAPHIC PROGRESSION IN EARLY PSA PATIENTS

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Background: Psoriatic arthritis (PsA) is an inflammatory arthritis associated with a progressive erosive disease which had been reported in more than one-half of patients with PsA and is often associated with functional impairment [1]. Despite advances in diagnosis and therapy, radiographic structural damage is still prevalent in PsA. To shed light on this topic, we studied which clinical characteristics determine radiographic progression using conventional radiography.

Objectives: Our aim is to assess baseline clinical parameters as determinants for radiographic progression in early PsA patients at 2-year follow-up.

Methods: The study population consisted of 358 PsA patients from the DEPARR study which consists of PsA patients who were newly diagnosed from 11 centers in the Netherlands. Radiographic progression was measured with the modified Total Sharp Score (mTSS). The proportion of patients with radiographic progression was defined as a change in mTSS>1.97 (the smallest detectable change) over 2 years of follow-up. Baseline clinical parameters comparisons between groups at diagnosis were made by Student’s t-test, chi-squared test, ANCOVA (age, gender baseline CRP and baseline mTSS were used as confounders). All clinical data are observed, without imputation; except for the mTSS values, which were imputed using the linear interpolation approach.

Results: Of the 358 early PsA patients, change in mTSS (mean(S.D.) was found to be 12.35(21, and 42 were in the radiographic progression group at follow-up 2-year(12%). At diagnosis, the mean age of the progression group was older than the non-progression group (57 ± 14 vs 50 ± 14). Patients who had a radiographic progression in 2 years had significantly higher median scores in mTSS (22.1, IQR = 23 vs 0, IQR = 0–1) at diagnosis. The erosion score in progressors followed poorer results compared to non-progressors but there was no significance. In addition, the patients with progressive mTSS had a significantly higher prevalence of erosive disease at baseline(57% versus 18%). The progression group had higher swollen joint counts (median(IQR)) but was no difference in statistics. However, the percentage of the presence of swollen joints was significantly greater in the progression group at baseline(53% vs 78%)(Figure 1). Baseline CRP levels were higher in progressions than non-progressions, but there was no difference between groups as a continuous measure(12.35(21 vs 14(21). Furthermore, the progression group had a significantly higher percentage of patients with CRP levels of more than 1 mg/dl(88% vs. 74%). Meanwhile, DAPSA, ESR, and the baseline presence of dactylitis/enthesitis did not differ between the groups. We also observed a difference in initial treatments between progressors and non-progressors.

Conclusion: According to this real-world longitudinal cohort, early PsA patients have low radiographic progressions with the current treatment protocols. Baseline clinical determinants for radiographic progression at follow-up 2 years are older age, swollen joints, erosive disease, JSN score, and baseline CRP levels (>1 mg/dl).