

## **Comparison between Patients with Spondyloarthritis Managed in Community Based Care Settings to those Managed in Tertiary Research Setting in Ontario: An OBRI-SPARCC Study**

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**Objectives:** Patients with spondyloarthritis (SpA) in community practices may have less disease severity compared to those managed in tertiary care research settings. We aimed to describe the disease status of SpA patients in the community-based Ontario Best Practices Research Initiative (OBRI) cohort and compare it with the tertiary care Spondyloarthritis Research Consortium of Canada (SPARCC) cohort from Toronto.

**Methods:** In this cross-sectional study baseline data from patients from 11 community centres enrolled into the OBRI-SpA cohort were compared to patients evaluated at the SPARCC Toronto Cohort. Patients were matched 1:1 by assessment date (+/- 1.5 year). We compared demographics, comorbidities, disease features, patient reported outcomes and treatment using descriptive statistics, t-test and two-proportion z-test.

**Results:** Between March 2015 and March 2017, 143 (33 first visit) PsA and 174 (35 first visit) AS patients were enrolled into OBRI-SpA and matched to an identical number of PsA and AS patients from SPARCC. For PsA patients, although the age at study entry were similar, SPARCC patients had significantly lower mean (SD) age at diagnosis (SPARCC- 37.6(12.9); OBRI- 43.5(13.4), $p=0.0003$ ), were less Caucasians (86%;94%; $p<0.0001$ ) and more males (59%;43%; $p=0.005$ ). SPARCC had lower tender [2.7(5.6);4.8(6.8); $p=0.007$ ] and swollen [1.4(4);3.5(4.4); $p<0.0001$ ] joint counts but more psoriasis (96%;90%; $p=0.04$ ) and elevated ESR/CRP (70%;31%; $p<0.0001$ ). The prevalence of enthesitis, dactylitis, inflammatory back pain, nail psoriasis, IBD and uveitis were similar. Depression and cancer were less prevalent in SPARCC; CVD and diabetes were similar. Patients in SPARCC were treated less with DMARDs (40%;75%; $p<0.0001$ ); proportions treated with NSAIDs and biologics were similar. Similar proportion of patients satisfied criteria for minimal disease activity. The HAQ score was lower in SPARCC [0.5(0.6);0.9(0.7); $p<0.001$ ]. For AS patients, the age at study entry (SPARCC41.7(13.5); OBRI- 49.8(14.6), $p<0.0001$ ), age at diagnosis [29.4(12.5);OBRI-39.4(15), $p<0.0001$ ] and the proportion of Caucasians (71%;88%; $p<0.0001$ ) were lower in SPARCC, but the proportion of males was similar. SPARCC had lower prevalence of enthesitis (4.3%;18.4%; $p<0.0001$ ) but higher IBP (83%;50%; $p<0.0001$ ). The prevalence of IBD, uveitis, peripheral arthritis and elevated ESR/CRP was similar. CVD and diabetes were lower in SPARCC, but depression and cancer were similar. Similar proportion of patients were treated with NSAIDs, DMARDs and biologics. Although the BASDAI and HAQ were similar, the BASFI was lower in SPARCC [3(2.7);3.6(2.8); $p=0.04$ ].

**Conclusion:** Compared to patients seen in research settings, SpA patients in community clinics in Ontario were older at diagnosis, had more peripheral arthritis (PsA), enthesitis (AS) and worse function. Usage of biologic agents was similar. Strategies for earlier triage and referral in the community may help improve functional outcomes.