Study finds disparities in RA disease activity and physical function across racial and ethnic groups

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New research presented this week at ACR Convergence, the American College of Rheumatology's annual meeting, found that racial and ethnic

disparities for disease activity persist in people with rheumatoid arthritis. Black and Hispanic patients often had higher disease activity and lower self-reported functional status when compared to white patients.

Rheumatoid arthritis (RA) is the most common type of autoimmune arthritis. It is caused when the immune system (the body's defense system) is not working properly. RA causes pain and swelling in the wrists and small joints of the hands and feet. RA can sometimes cause various systemic effects, such as severe fatigue or organ damage to the heart, lungs or eyes.

Research has shown that there are differences in disease activity and clinical outcomes for people with RA across different racial and ethnic groups in the United States. The authors conducted this new study to learn more about these disparities and how they may have changed over time.

"Disparities exist across the healthcare system, and these inequities impact both patient experience as well as patient clinical outcomes," says Jacqueline O'Brien, Ph.D., a clinical epidemiologist at CorEvitas, LLC, and the study's co-author. "However, this has not been studied as extensively in RA as in other disease areas, so there is still a need to understand the magnitude of health disparities in RA. We need to identify where the disparities exist, so that we can better target therapy and improve care, for all patients."

Researchers used data from the CorEvitas registry of over 56,000 RA patients living in 42 U.S. states. They included patients who had clinic visits between 2013 and 2015 and 2018 and 2020. Patients self-reported their race and ethnicity and were grouped as either Black (non-Hispanic), white (non-Hispanic), Hispanic or Asian. Clinical Disease Activity Index (CDAI) was used at both visits to measure RA disease activity.

There were 9,363 participants, mostly female and in their late 50s, including 8,142 white, 527 Black, 545 Hispanic and 149 Asian. Their RA disease duration ranged from about 10 to 12 years. More than half of patients had a history of serious infections. Up to 41% had a history of hypertension.

The study's primary outcome was the Clinical Disease Activity Index score. Secondary outcomes were the proportion of patients with low disease activity or remission and HAQ-disability index, a measure of physical function, at each visit. In addition to examining the outcomes cross-sectionally, the researchers evaluated the mean change in disease activity and physical function scores from the first to the second visit, and the probability that patients would achieve low disease activity or remission by the second visit.

Estimated Clinical Disease Activity Index remained significantly higher, meaning greater disease activity, for Hispanic patients compared to white patients at both time points. Disease activity improved over the 7-year study period among all racial and ethnic groups, though Hispanic patients improved less than white patients. There were differences in functional status at both time points, with Black and Hispanic patients having higher scores, meaning worse functional impairment, compared to white patients. The racial and ethnic groups achieved low disease activity and remission at similar rates between the two time periods.

"Our study was designed to evaluate clinical outcomes, and unfortunately does not address issues related to access to care. We saw that all patients demonstrated improvement over time, but even after adjustment for potential confounding variables, such as the study site, prior and current biologic use, insurance status, education, there were still differences between the racial and ethnic groups at the second time point," O'Brien says. "Many factors contribute to health inequity, including access to care, socioeconomic status, systemic racism, and other social

determinants of health. Certainly, more research is needed to understand how these factors interact and result in different clinical outcomes for racial and ethnic groups."

More information: Jacqueline O'Brien et al, Disparities in Burden of Disease in Patients with RA Across Racial and Ethnic Groups [abstract]. *Arthritis Rheumatology* (2021). Available at acrabstracts.org/abstract/disp … l-and-ethnic-groups/

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