

Obesity linked to lower remission, higher disability in rheumatoid arthritis patients

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Patients with rheumatoid arthritis whose body-mass index scores are higher have lower rates of remission and higher rates of disability, and effective weight screening and management should be a central feature of RA management, according to new research findings presented this week at the 2017 ACR/ARHP Annual Meeting in San Diego.

Rheumatoid arthritis (RA) is a chronic [disease](#) that causes pain, stiffness, swelling, and limitation in the motion and function of multiple joints. Though joints are the principal body parts affected by RA, inflammation can develop in other organs as well. An estimated 1.3 million Americans have RA, and the disease typically affects women twice as often as men.

There are established links between inflammation, obesity and joint dysfunction. Researchers in the United Kingdom conducted a study to more clearly define how these conditions translate into clinical disease [activity](#) and functional disability in RA [patients](#). The study explored associations between [body-mass index](#) (BMI) and both the achievement of disease remission or low disease activity and functional ability in RA.

"Obesity is increasing in prevalence and represents a global health concern. It has been implicated as a risk factor for developing RA, and is an increasingly prevalent comorbidity seen on first presentation of RA," said Elena Nikiphorou, MD, a researcher in the Academic Rheumatology Department at King's College, London, and a lead author of the study. "There is growing recognition that the inflammatory states mediated by obesity and those by inflammatory rheumatic diseases share

common pathways. Some have suggested that in fact, obesity is a low-grade, chronic inflammatory condition. Thus, in RA co-existing with obesity, both autoimmune and obesity-mediated inflammatory states may work together, affecting disease activity and consequently important disease outcomes and quality of life."

The researchers used data from two consecutive, multicenter RA inception cohorts with similar design, both in the United Kingdom: the Early RA Study (ERAS) and the Early RA Network (ERAN). Recruitment figures and median follow-up were 1,465/10 years with a maximum of 25 years for the ERAS patients, 1,236/six years with a maximum of 10 years for the ERAN patients. The researchers recorded standard demographic and clinical variables at baseline and then annually until loss to follow-up or the end of study follow-up.

The baseline BMI data from 90 percent of the RA patients showed that 37.2 percent were overweight and 21.3 percent were obese. The mean BMI at baseline was 25.5 in the ERAS group and 27.6 in the ERAN group, and this increased over five years. In models that adjusted for age, sex and year of recruitment, higher BMI was associated with reduced odds of the patients achieving Remission-DAS (R-DAS) and Low-DAS (L-DAS) scores, two key measurements of low disease activity. Higher BMI also predicted higher disability rates among these patients. Specifically, obesity increased a patient's odds of higher disability by 63 percent, and higher DAS scores also strongly predicted higher disability.

"Our study's findings demonstrate the increasing prevalence of obesity in RA patients and its negative consequences on disease activity, achieving a treat-to-target low disease activity goal and good functional outcomes," said Dr. Nikiphorou. "Obesity is potentially a reversible comorbidity and successfully treating it can contribute to better [disease activity](#) and functional outcomes. Based on our data, there is a strong argument to

include [obesity](#) screening and management as a central part of all treatment plans for RA patients."

Provided by American College of Rheumatology

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