RHEUMATOID ARTHRITIS

How bad is obesity for RA?

Two studies published in *Arthritis Care & Research* highlight the adverse consequences of being overweight or obese for patients with rheumatoid arthritis (RA). Both studies found that obesity is associated with worse outcomes and higher prevalence of comorbidities than normal weight.

In the USA, Wolfe and Michaud examined the relationships between BMI and both mortality and clinical variables in 24,535 patients enrolled in the National Data Bank for Rheumatic Diseases longitudinal study of RA outcomes, during which patients responded to an internet questionnaire collected every 6 months from 1999 to 2011 (12.3 years). Most patients in the cohort reported a BMI >25 at the time of entering the study and were therefore classified as overweight (32.4%) or obese (30.2%) according to WHO definitions, proportions consistent with the general US population.

Compared with patients with normal BMI, overweight and obese patients had a reduced relative risk of all-cause mortality (RR 0.8 for both groups). Relative risk of cardiovascular mortality was also decreased in both groups.

By contrast, however, high BMI was associated with negative effects on several clinical variables: obese patients were more likely to have comorbidities such as hypertension and diabetes (OR 3.4 and 4.8, respectively), as well as higher levels of pain (1.1 units higher on a 0–10 scale) and disability

(0.3 units higher on a 0–3 scale), than patients with normal BMI.

In Sweden, 1,391 participants in the BARFOT (Better Anti-Rheumatic Pharmacotherapy) study—an observational, prospective study in patients with early RA that ran from 1992 through 2006—responded to a 2010 questionnaire of lifestyle factors and RA outcomes. At follow-up (mean 9.5 years), 39.3% of respondents were classified as overweight and 15.8% as obese by WHO definitions, up from baseline values of 33% and 12.9%, respectively.

Consistent with the US study, the Swedish study found that obesity was linked with increased pain (OR 1.08) and disability (OR 1.49), and increased prevalence of diabetes (OR 2.2), hypertension (OR 3.2) and chronic pulmonary disease (OR 1.9). Furthermore, 28-joint disease activity scores were higher in obese than non-obese patients (OR 1.2) at follow-up.

Together, the results of these two studies suggest that interventions to decrease BMI to within normal range could improve clinical outcomes and overall health for patients with RA.

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Original articles Wolfe, F. & Michaud, K.

The effect of body mass index on mortality and clinical status in rheumatoid arthritis. *Arthritis Care Res. (Hoboken)* doi:10.1002/acr.21627 | Ajeganova, S. et al. Obesity is associated with worse disease activity in rheumatoid arthritis as well as with co-morbidities—a long-term follow-up from disease onset. *Arthritis Care Res. (Hoboken)* doi:10.1002/acr.21710