

27th European Cardiology Conference

October 22-24, 2018 | Rome, Italy



Imre Janszky

Norwegian University of Science and Technology, Norway

Weight and weight change and risk of acute myocardial infarction and heart failure: The HUNT study

Objectives: The objective of this study is to delineate the association of weight with cardiovascular health throughout adulthood.

Methodology: We conducted a population-based prospective cohort study of 26,097 community-dwelling individuals who were followed for 11.4 years with measurements of cardiovascular risk factors and common chronic disorders. Body weight and height were directly measured at baseline in 1995-1997 as they had been 10 and 30 years prior to baseline. From these measurements, we estimated average body mass index (BMI) over time and calculated weight change.

Results: The association of average BMI with acute myocardial infarction (AMI) became weaker with adjustment for the most recent BMI measurement, whilst this adjustment had a more limited effect on associations with heart failure (HF) risk. For example, the multi-adjusted hazard ratios for AMI in a comparison of individuals with average BMI until baseline ≥ 35 kg m⁻² and between 18.5 and 22.4 kg m⁻² decreased from 1.75 [95% confidence interval (CI) 1.04–2.95] to 1.32 (0.73–2.40). The corresponding numbers for HF were 3.12 (1.85-5.27) and 2.95 (1.53-5.71), respectively. The associations between weight change and risk of AMI and HF were U-shaped, with stable weight showing the lowest risk.

Conclusions: Sustained overweight or obesity over time is associated with increased risk of HF, even after adjustment for the most recent BMI. For AMI risk, the most recent BMI appears to be the most important. Weight change also increases risks for both outcomes beyond the effects of BMI. Our results suggest that a global epidemic of obesity is likely to increase the incidence of HF, even if BMI in middle age can be controlled.

Biography

Imre Janszky has an MD and a PhD degree from Semmelweis Medical University, Budapest, Hungary and from Karolinska Institutet, Stockholm, Sweden, respectively. He is currently working at the Department of Public Health and General Practice/Norwegian University of Science and Technology as professor in epidemiology. His main focus of research is on risk and prognostic factors for cardiovascular diseases, but he also has interest in other areas including epidemiology of psychiatric and neurologic disorders and epidemiologic methods.

Notes: