Metabolic syndrome and subsequent risk of type 2 diabetes and cardiovascular disease in elderly women Challenging the current definition - DTU Orbit (08/12/2018)

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The prognostic value of the metabolic syndrome (MetS) is believed to vary with age. With an elderly population expecting to triple by 2060, it is important to evaluate the validity of MetS in this age group. We examined the association of MetS risk factors with later risk of type 2 diabetes (T2DM) and cardiovascular disease (CVD) in elderly Caucasian women. We further investigated if stratification of individuals not defined with MetS would add predictive power in defining future disease prevalence of individuals with MetS. The Prospective Epidemiological Risk Factor Study, a community-based cohort study, followed 3905 Danish women since 2000 (age: 70.1±6.5) with no previous diagnosis of T2DM or CVD, holding all measurements used for MetS definition; central obesity, hypertension, hyperlipidemia, and hyperglycemia combined with register-based follow-up information. Elderly women with defined MetS presented a 6.3-fold increased risk of T2DM (95% confidence interval: [3.74-10.50]) and 1.7-fold increased risk of CVD (1.44-2.05) compared to women with no MetS risk factors. Subdividing the control group without defined MetS revealed that both centrally obese controls and controls holding other MetS risk factors also had increased risk of T2DM (hazard ratio (HR)=2.21 [1.25-3.93] and HR=1.75 [1.04-2.96]) and CVD (HR=1.51 [1.25-1.83] and HR=1.36 [1.15-1.60]) when compared to controls with no MetS risk factors. MetS in elderly Caucasian women increased risk of future T2DM and CVD. While not defined with MetS, women holding only some risk factors for MetS were also at increased risk of T2DM or CVD compared to women with no MetS risk factors.

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