Protective effect of a “brain”-healthy lifestyle on dementia risk is independent of sex

Recent estimates suggest that two in five cases of dementia could be potentially attributable to a multitude of modifiable risk factors. Despite the growing body of evidence on lifestyle(-related) risk factors for dementia, risk personalization beyond age has rarely been explored. This large-scale harmonization study assessed the potential moderating effect of sex on the association between a comprehensive modifiable dementia risk score (LIfestyle for BRAin health (LIBRA) score) and dementia incidence. Individual participant data from 19 prospective cohort studies from 16 countries on four continents was harmonized. A potential interaction between sex and LIBRA score was examined by performing stratified Cox proportional hazard regression analysis for each cohort separately. Results were pooled with meta-analysis. A total of 24,523 individuals (mean age (SD): 71 (10); 50.3% female) without dementia at baseline were included. Individuals were followed up for 151,462 person-years (median follow-up time: 5.0 years). In total, 1,630 cases of incident dementia were recorded. Baseline LIBRA scores differed significantly between cohorts. Overall, a one-point increase in LIBRA score was associated with a 6% higher risk of dementia (HR=1.06; 95% CI: 1.03-1.09)). This association was not moderated by sex. Both sexes seem to benefit equally from a brain-healthy lifestyle to reduce dementia risk.