

Revisiting modifiable Risk factors for Alzheimer's disease

Dissecting causal risk factors for Alzheimer's disease (AD) from early symptoms is a major challenge due to the long prodromal phase of AD.

The present study aims to dissect a wide range of causal risk factors for AD, accounting for confounders and reverse causation.

Methods

Exposures:
26 genetically instrumentable exposure categories including sleep, hypothyroidism, hypertension, body size, cognition, hyperlipidemia, diet, hearing loss, vision loss, smoking, alcohol consumption, anxiety, depression, cardiovascular disease, renal impairment, diabetes, infections, inflammation, autoimmune GI disorders, brain volume, choline, loneliness, physical activity, red blood cells, rheumatoid arthritis, and telomere length.

Outcome:
GWAS of clinically diagnosed and age-matched cases and controls from the IGAP consortium (Kunkle et al., 2019)

Mendelian Randomisation approaches:
Univariable (IVW, Weighted Median) forward- and reverse analyses
Multivariable methods to account for confounding, correlated exposures, and right censoring

