Mild Cognitive Impairment: a Prospective Community Study

https://neurodegenerationresearch.eu/survey/mild-cognitive-impairment-a-prospective-community-study/

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Country

USA

Title of project or programme

Mild Cognitive Impairment: a Prospective Community Study

Source of funding information

NIH (NIA)

Total sum awarded (Euro)

€ 11,084,062.39

Start date of award

01/04/2004

Total duration of award in years

11

The project/programme is most relevant to:

Alzheimer's disease & other dementias

Keywords

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Research Abstract

? DESCRIPTION (provided by applicant): This competing renewal application seeks to extend, for a further 5 years, the Monongahela-Youghiogheny Healthy Aging Team (MYHAT) project, a 10-year longitudinal study of a representative population-based cohort in an economically

depressed small-town region near Pittsburgh, PA. MYHAT has thus far focused on characterizing MCI and identifying risk factors for progression from MCI to incident dementia, and identified considerable heterogeneity in risk relationships. Building on findings to date, our new aims are: (1) To identify risk /protective factors for dementia in those aged 90+ years, in whom incidence continues to rise but few risk factors have been found; (2) To identify vascular / inflammatory/ metabolic risk factors, particularly diabetes-related factors, for dementia in the cohort as a whole ; (3) To examine birth cohort effects in the incidence of dementia and cognitive decline, and determine whether they can be explained by secular trends in risk and protective factors; (4) To identify genes associated with cognitive decline endophenotypes using existing genome-wide genotype data and then confirming in a replication sample. We also propose an exploratory aim to extend amyloid and tau PET neuroimaging into a subgroup of 120 MYHAT participants, at no cost to this study, as part of an independent project. Here the scientific objective is to identify factors associated with cerebral amyloid and tau deposition and determine whether those variables predict dementia in the MYHAT cohort as a whole. The original MYHAT cohort (N~2,000) aged 65+ years at study entry is now aged 75+ and has 10 years of rich longitudinal data that are ideal for achieving our aims. About half the cohort has been lost to attrition, including illness and mortality, over the past 9 years. We will replenish te cohort by recruiting 700 new participants aged 65-74 who are able to contribute the maximum person-years of followup, and will also enhance our ability to investigate cohort effects. Our over-arching theme is to investigate the heterogeneity of MCI and dementia in the population at large, deconstructing the outcomes as well as the predictor variables to identify finer-grained relationships which will shed light on underlying disease mechanisms. This approach is consistent with the goals of translational epidemiology, going beyond simple description to identify risk and protective factors with clinical and public health significance, and the subgroup in which these factors operate; generate and test mechanistic hypotheses; and identify population trends with implications for policy and planning.

Lay Summary

PUBLIC HEALTH RELEVANCE: A community-based cohort of over 2,000 adults aged 65+ years was assembled between 2006 and 2008. Participants were carefully assessed on their cognitive abilities and everyday functioning, and on several clinical and biological measures. By following them annually, we are able to determine their risk of developing Alzheimer’s and other dementias, and identify factors which might increase or reduce these risks. The community-based information will complement studies conducted in highly specialized research clinics, and shed light on risk factors in the population at large. The knowledge generated will inform strategies for prevention of cognitive decline and dementia in older adults, and potentially influence planning and policy as well.

Further information available at:

Types:
Investments > €500k

Member States:
United States of America

Diseases:
Alzheimer's disease & other dementias

Years:

2016

Database Categories:
N/A

Database Tags:
N/A