Role of midlife cardiovascular disease on Alzheimer’s Pathology and cerebrovascular reactivity in the young-old.

https://www.neurodegenerationresearch.eu/survey/role-of-midlife-cardiovascular-disease-on-alzheimer%c2%92s-pathology-and-cerebrovascular-reactivity-in-the-young-old/

Principal Investigators

COHEN, ANN D.

Institution

UNIVERSITY OF PITTSBURGH AT PITTSBURGH

Contact information of lead PI
Country

USA

Title of project or programme

Role of midlife cardiovascular disease on Alzheimer’s Pathology and cerebrovascular reactivity in the young-old.

Source of funding information

NIH (NIA)

Total sum awarded (Euro)

€ 2,986,186.24

Start date of award

15/07/2016

Total duration of award in years

1

The project/programme is most relevant to:

Alzheimer's disease & other dementias

Keywords

Acquired Cognitive Impairment... Aging... Alzheimer's Disease... Alzheimer's Disease including Alzheimer's Disease Related Dementias (AD/ADRD)... Brain Disorders... Cardiovascular...

Cerebrovascular... Clinical Research... Clinical Research - Extramural... Dementia... Heart Disease... Neurodegenerative... Neurosciences... Prevention

Research Abstract
? DESCRIPTION (provided by applicant): The prevalence of Alzheimer’s disease (AD) is closely related to the presence of cardiovascular disease (CaVD), understanding the relationship between amyloid-beta (A?) pathology and CaVD is critically important. The overarching goal of this study is to further the understanding of the relationship between AD pathology, including A? and tau pathology and neurodegeneration, cerebrovascular reactivity and midlife CaVD. To achieve these goals, we will utilize a group non-demented participants from an existing cohort from the ongoing community-based Heart Strategies Concentrating on Risk Evaluation (Heart SCORE) study, a longitudinal study that began in 2003 with a cohort of 2000 participants (43% black) between the ages of 45-75 years at study entry and has collected a wealth of longitudinal vascular measures. We hypothesize that subclinical CaVD identified in midlife is associated with increased risk for Alzheimer’s disease pathology expressed as amyloid deposition and neurodegeneration. These changes in brain structure would be associated with alterations in cognition both cross-sectionally and longitudinally. We further hypothesize that the change in cognition will result from a failure of vascular compensatory responses, marked by increases in regional cerebral blood flow and cerebrovascular reactivity.

Lay Summary
PUBLIC HEALTH RELEVANCE: Alzheimer’s disease (AD) and cardiovascular disease (CaVD) are two of the most common disorders of aging, understanding the relationship between the pathologies of these two disorders is critically important. The goal of this study is to furthe the understanding of the relationship between AD pathology and midlife CaVD. We will utilize a group 80 participants with a wealth of existing CaVD data from the Heart Strategies Concentrating on Risk Evaluation (Heart SCORE) study, a longitudinal study that began in 2003 with 2000 participants (43% black) between the ages of 45-75 years. Our goal is to understand how CaVD and AD pathology interact to produce cognitive changes in the elderly.

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