The impact of beta-amyloid burden on cognition in normal aging

https://neurodegenerationresearch.eu/survey/the-impact-of-beta-amyloid-burden-on-cognition-in-normal-aging/

Principal Investigators

Joubert, Sven A

Institution

Institut universitaire de gériatrie de Montréal

Contact information of lead PI
Country

Canada

Title of project or programme

The impact of beta-amyloid burden on cognition in normal aging

Source of funding information

CIHR

Total sum awarded (Euro)

€ 419,813

Start date of award

01/10/2012

Total duration of award in years

5

Keywords
Research Abstract

Alzheimer’s disease (AD) is the leading cause of dementia in Canada. Because the Canadian population is growing older and because age represents the greatest risk factor of developing the disease, it is important to better understand the differences between normal aging and the earliest signs of AD. The recent development of techniques for in vivo imaging of brain amyloid protein aggregations, one of the main pathological features of AD, offers new research perspectives in terms of understanding the nature and evolution of brain pathology in AD. Pittsburgh Compound B (PIB), which binds to betaamyloid (AB) deposits in the brain, may prove very useful in studying the relationship between these abnormal aggregations in the brain and cognitive function in aging. Recent PIB studies indicate that 10-30% of normal older persons

show a pattern of binding similar to AD. Therefore, it is important to determine if these individuals may be at greater risk of later developing AD. Our objective is to use PIB scanning to investigate the relationship between AB deposition and cognitive performance in normal aging. We will study the relation between PIB retention in the brain and neuropsychological performance in healthy older adults. Our main hypothesis is that cognitively normal older individuals who show greater PIB uptake in the brain will show mild deficits on neuropsychological tests when compared to older individuals with low PIB uptake. The contributions of this study will be to improve our comprehension of the relation between the amount of AB deposition in the brain and cognition in normal aging. It will help understand if cognitively normal persons with AB deposition are on a trajectory toward AD. PIB imaging may help detect AB pathology in asymptomatic or mildly symptomatic individuals, and anti-amyloid therapies and non pharmacological interventions may be most helpful at this stage, before the onset of other pathological processes in the brain.

Further information available at:

Types:
Investments < €500k

Member States:
Canada

Diseases:
N/A

Years:
2016

Database Categories:
N/A

Database Tags:
N/A