

## S25-02

### FDG-PET AND STRUCTURAL MRI IN SUBJECTIVE MEMORY IMPAIRMENT

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Early recognition of Alzheimer's Disease (AD) is a prerequisite for future strategies against the rapidly increasing prevalence of dementia. Mild cognitive impairment (MCI) has been identified as a clinical pre-dementia syndrome in the course of AD. Epidemiological studies suggest that MCI is preceded by subjective memory impairment (SMI) with still intact cognitive functioning. Studies on biological indicators of AD in SMI, however, are still rare. We compared glucose metabolism using fluorodeoxyglucose F18-positron emission tomography (FDG-PET) and grey matter structure using magnetic resonance imaging (MRI) of 29 SMI subjects and 52 non-complaining volunteers. We found reduced glucose metabolism in the posterior cingulate gyrus/precuneus and in the left parietal lobe and reduced grey matter in bilateral medial temporal lobe areas in SMI. These patterns of hypometabolism and grey matter reduction resemble those of early AD and those that predict cognitive decline in MCI. Our data provides biological support from two independent neuroimaging modalities for SMI as the initial clinical manifestation of AD prior to MCI.