The National Institute on Aging-Alzheimer’s Association research criteria for mild cognitive impairment due to Alzheimer’s disease: predicting the outcome.

Abstract:
The National Institute on Aging-Alzheimer’s Association (NIA-AA) clinical research criteria for mild cognitive impairment (MCI) due to Alzheimer’s disease (AD) incorporate the use of biomarkers to classify patients according to the likelihood of the presence of AD pathology. The aim of the study was to compare the risk of progression to AD dementia between the four NIA-AA MCI subgroups using data from the AD Neuroimaging Initiative. Patients with MCI were categorised according to the NIA-AA criteria into subgroups with high, intermediate, and low likelihood of the presence of AD pathology (MCI-high, MCI-intermediate, and MCI-unlikely, respectively) or into a group of patients that only met the MCI-core clinical criteria (MCI-core). Data of follow-up visits conducted 6-60 months after baseline were used to compare the relative risk of future AD dementia between the four subgroups employing a Cox regression model. The MCI-high subgroup (N = 22) had a 2.3 times higher risk of developing AD dementia compared with the MCI-core subgroup (N = 327; P = 0.002), while there was a trend for a higher risk in the MCI-high subgroup in contrast to the MCI-intermediate subgroup (N = 31, P = 0.08). No patients in the MCI-unlikely subgroup (N = 17) progressed to AD dementia. Patients with MCI-high have a higher risk for developing AD dementia. The new
NIA-AA MCI criteria represent a valuable research instrument that could be incorporated into the diagnostic process of the MCI syndrome after optimisation and refinement.