Abstract

Background: In this study, we investigated the effects of normal and pathological (mild cognitive impairment, MCI) aging on several cognitive functions (processing speed, executive control and implicit memory). Method: Twenty young adults, 20 healthy older adults and 20 elders with MCI performed a series of cognitive tasks under controlled conditions. These tasks were simple and choice reaction time, the Wisconsin Card Sorting Test (WCST), and an implicit memory task for attended and unattended objects at encoding. Results: The MCI group showed pronounced declines in processing speed and executive control tasks. Interestingly, young and healthy older participants showed repetition priming for stimuli that were attended at encoding, but the MCI group did not. Conclusions: In this latter group, the lack of repetition priming for attended objects in the implicit memory task resembled that of Alzheimer disease (AD) patients and suggests an early deficit of selective attention that might be a marker of pathological aging.

Keywords
Aging, executive function, mild cognitive impairment (MCI), repetition priming, selective attention, speed of processing.