The variation in the relationship between memory, cognitive control and theory of mind in two groups of elderly; patients with mild cognitive impairment and patients with vascular risk factors.

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Several studies have linked non-diagnosed vascular pathology with cognitive impairment. It is reasonable to maintain that since vascular disease affects the brain, it also affects cognitive functioning especially functions supported by the frontal lobes. The theoretical approach of the "vascular hypothesis of cognitive aging" posits hypertension, hyperlipidemia, and diabetes mellitus as basic risk factors for vascular disease. A step further in regards to cognitive decline, the term 'Mild Cognitive Impairment (MCI)' was introduced to describe a subtle decline in cognition identified as a first 'indicator' of the dementia trajectory. Besides the well established memory deficits, many patients with MCI deal with problems in executive functions or cognitive control processes while in the more recent literature, we come across studies on Theory of Mind (ToM) in MCI. The present study aims to investigate the differences of older adults having vascular risk factors and MCI patients in regards to the pattern of the relations between cognitive control, memory and Theory of Mind. The sample consisted of two groups (VRF and MCI) of older adults (n = 50), matched for gender, age and educational level. The findings indicated that complex ToM as indirect speech understanding was at a significantly lower level in MCI patients, as compared to community dweller VRF group. Moreover, MCI patients had a serious deficit in recruitment of combined executive functions in order to support indirect speech understanding.