

Abstract

Neuropsychological assessment of cognitive functions in multiple sclerosis (MS) is increasingly considered as an important paraclinical marker of disease stability or progression in MS. Recent recommendations proposed an annual screening of cognitive functions in all MS patients as a standard of neuropsychological monitoring in MS. There is a clear trend to diagnose possible disease progression as early as possible, to be able to respond quickly.

The theoretical part of this thesis presents the current state of knowledge on cognitive impairment in MS, its correlates, predictors, and treatment possibilities. In addition, a comprehensive overview of the neuropsychological assessment and the diagnosis of cognitive deterioration in MS is presented. The highly relevant topics such as cutoff criteria of a meaningful change on individual neuropsychological examination, possibilities of treatment of cognitive deterioration, or the so-called isolated cognitive relapses, are discussed in a particular detail.

The empirical part extends current knowledge in the field of MS. I present and discuss six original publications that follow these four main objectives: first, to describe the prevalence of isolated cognitive decline in MS and to put isolated cognitive decline in context with current knowledge on MS disease progression. Second, to identify methods that can improve the quality of the diagnostic process of cognitive deterioration in MS, third, to explore the concept of subjective cognitive decline, the workability of MS patients, and volumetric MRI markers that can predict future cognitive deterioration. And the last objective plans to evaluate compensatory and rehabilitation strategies used to cope with cognitive deterioration in MS.

Keywords: Isolated Cognitive Decline, Neuropsychological Assessment, Multiple Sclerosis, Cognitive Deterioration, Cognitive Impairment