Lecture: Differentiating Demyelinating Disorders of the Central Nervous System – a Focus on Multiple Sclerosis and Neuromyelitis-Optica Spectrum Disorders

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Abstract

Significant advances have been made in diagnosis and therapy of demyelinating disorders of the central nervous system. The most common entities of this disorders in adults – multiple sclerosis and neuromyelitis optica were initially thought to be different phenotypes of more or less the same disease. During the last ten years, this view was subsequently changed and the term neuromyelitis optica-spectrum disorder (NMOSD) was established. It encompasses a variety of clinical presentations that can mimic MS and other disorders. NMOSD are characterized by certain hallmarks in pathophysiology, especially the presence of different antibodies with high specificity. In clinical routine, a clear differentiation between MS and NMOSD is essential due to significant differences in therapy. Treatment of NMOSD with most substances approved for MS can lead to devastating relapses and even death. Furthermore, the clinical course of NMOSD often is severe and itself leads to massive impairment and high mortality. Neurologists – especially those with a scope on neuroimmunology – need to be familiar with diagnosis and at least acute treatment of this disease. This lecture will give an introduction into epidemiology and pathophysiology of the disorder and will highlight its differences to MS. The new criteria for diagnosis of NMOSD will be presented and discussed including the new category of MOG-spectrum disorders. I also will give insights into current strategies for therapy and review future strategies for therapy.

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