

Does primary progressive MS have the same immunopathogenesis as RR/SPMS?

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MS is a heterogeneous disease. The primary progressive form of multiple sclerosis, which is characterized by gradual neurological worsening of disability from onset is still a matter of debate, whether disease course results from different pathogenetic mechanisms compared with secondary progressive or relapsing remitting MS. Inflammation, demyelination, remyelination and axonal damage are characteristic and fundamental pathological findings in MS. Differences observed in immunopathology among different courses do exist, but are more of quantitative than qualitative nature. Inflammatory lesions are the main feature of RR MS. PPMS as well as SP MS show significantly more diffuse inflammatory changes in NAWM than RRMS. Meningeal inflammation plays also a role in pathology of cortical gray matter lesions. Demyelination in the cerebral cortex is mainly a feature in patients with PPMS and SPMS, but rare or absent in patients with RRMS. A higher extent of axonal damage in normal appearing WM is observed in PPMS and SPMS compared to RRMS, which is in line with more diffused inflammatory reactions. Patients with RRMS and PPMS show more remyelination than patients with SPMS. We can not exclude primary neurodegeneration in immunopathogenesis of the disease and its different forms.