Progressive forms of MS respond to agents used for relapsing forms of the disease. Yes!

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Several disease modifying therapies (DMTs) used for the treatment of relapsing forms of MS (RMS) have shown some efficacy in progressive forms of the disease: Selective B-cell depletion using ocrelizumab consistently improved clinical and radiological measures of disease progression in primary-progressive (PP) MS patients, while rituximab was effective in a subgroup of younger PPMS patients with inflammatory lesions. Recently, the selective sphingosine-1-phosphate (S1P) modulator siponimod demonstrated positive effect on clinical and MRI measures in patients with secondary-progressive (SP) MS, suggesting beneficial effect of S1P receptor modulators in both RMS and SPMS. Treatment with several other MS drugs did not meet primary endpoints in clinical trials in PPMS or SPMS, however, beneficial effect was demonstrated in sub-groups of younger patients or those with more inflammatory disease characteristics, or on some other clinical and MRI endpoints. Inflammation and neurodegeneration co-exist in all stages and all forms of MS as part of a continuum, making the differences in these pathological traits more quantitative than qualitative. There is also evidence that inflammation drives neurodegeneration in MS, and that inflammation tends to be more sequestered and trapped within the central nervous system in the progressive forms of the disease. Thus, drugs used to treat RMS which target mainly inflammatory pathways, may have impact on inflammation and subsequent neurodegeneration in progressive MS, especially if they cross the blood-brain barrier. Moreover, most MS drugs have some effect on mechanisms involved in neurodegeneration, and may contribute to reduced brain damage and neuroprotection in progressive MS.