

Is the central vein sign really helpful in differentiating MS from other white matter disease? No

C. Constantinescu

Neurology, University of Nottingham, UK

Ultra-high field MRI, available in a restricted number of centers almost exclusively for research purposes, led to the recognition of the central vein sign (CVS) as a marker for the MS white matter lesions. Some criteria have been proposed for MS, e.g. \geq lesions with CVS or \geq 40%-50% of the lesions having CVS. Efforts are made to detect the CVS at 3T MRI. The reason the CVS is not (yet) helpful: Additional corroborating information (evoked potentials, CSF, clinical features) is more helpful. Currently CVS is consistently detected at ultra-high field MRI only and is restricted to research. The number of results even from 7-T MRI studies is too small. The CVS is not helpful when the number of lesions is limited. The central vein sign has limited value for the more relevant differential diagnosis situations, where a distinction between MS and other conditions is essential e.g. ADEM, sarcoidosis etc. Some conditions, e.g. neuro-Behçet may have lesions centered around a vein. CVS may be helpful diagnostically in microangiopathy in persons of a certain age with cardiovascular risk factors. Knowing the co-morbidity, clinical features adds information to the white matter changes. Inflammatory and microangiopathic lesions often coexist, and diagnosis needs time and remains clinical. A few illustrative cases will be discussed.