

Supplementary material

Attendees of the workshop: “Guidelines for the assessment of lesions in multiple sclerosis” (Milan, December, 13-14, 2018)

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Speakers - B.L. Banwell (Division of Neurology, Children's Hospital of Philadelphia, Perelman School of Medicine, University of Pennsylvania, Philadelphia, USA); F. Barkhof (Dept. of Radiology and Nuclear Medicine, Amsterdam Neuroscience, Amsterdam UMC, Vrije Universiteit, Amsterdam, Netherlands and Institutes of Neurology and Healthcare Engineering, University College London, London, UK); O. Ciccarelli (Dept. of Neuroinflammation, UCL Queen Square Institute of Neurology, University College London and University College London Hospitals Biomedical Research Center, National Institute for Health Research, London, UK); N. De Stefano (Dept. of Medicine, Surgery and Neuroscience, University of Siena, Siena, Italy); M. Filippi (Neuroimaging Research Unit, Institute of Experimental Neurology, Division of Neuroscience, San Raffaele Scientific Institute, Vita-Salute San Raffaele University, Milan, Italy); J.J.G. Geurts (Dept. of Anatomy and Neurosciences, Amsterdam Neuroscience, Amsterdam UMC, Vrije Universiteit Amsterdam, Amsterdam, Netherlands); F. Paul (NeuroCure Clinical Research Center and Experimental and Clinical Research Center, Max Delbrück Center for Molecular Medicine and Charité -Universitätsmedizin Berlin, Berlin, Germany); D.S. Reich (Translational Neuroradiology Section, Division of Neuroimmunology and Neurovirology, National Institute of Neurological Disorders and Stroke, National Institutes of Health, Bethesda, MD, USA); M.A. Rocca (Neuroimaging Research Unit, Institute of Experimental Neurology, Division of Neuroscience, San Raffaele Scientific Institute, Vita-Salute San Raffaele

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Discussants- A. Gass (Dept. of Neurology, Universitätsmedizin Mannheim, University of Heidelberg, Mannheim, Germany); C. Lubetzki ((Dept. of Neurology, AP-HP, Pitié-Salpêtrière Hospital, Sorbonne University, Paris, France); P. Preziosa (Neuroimaging Research Unit, Institute of Experimental Neurology, Division of Neuroscience, San Raffaele Scientific Institute, Vita-Salute San Raffaele University, Milan, Italy); B.G. Weinshenker (Dept. of Neurology, Mayo Clinic, Rochester, MN, USA).

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Search strategy and selection criteria

References for this Review were identified through searches of PubMed with the search terms “Multiple Sclerosis”, “MRI”, “Lesion/s”, “Demyelination”, “Periventricular”, “Juxtacortical”, “Cortical”, “Infratentorial”, “Posterior Fossa”, “Brainstem”, “Cerebellum”, “Spinal Cord”, “Optic Nerve”, “Diagnosis”, “Diagnostic criteria”, “Differential Diagnosis”, “Central Vein Sign”, “Subpial Demyelination”, “Rim” from 1979 until March 2019. Articles were also identified through searches of the Authors’ own files. Only papers published in English were reviewed. The final reference list was generated on the basis of originality and relevance to the broad scope of this Review, with a focus on articles published during the past five years.

Authors’ contribution

AT drafted the section on periventricular lesions. TAY drafted the sections on vascular lesions and infratentorial lesions. NDS drafted the section on juxtacortical lesions. ATT drafted the section on optic nerve lesions. MAR drafted the section on spinal cord lesions. JJGG drafted the section on cortical and gray matter lesions. FB drafted the section on enhancing lesions. DSR drafted the section on central vein identification. OC drafted the section on smoldering lesions. PP drafted the section on subpial demyelination and prepared Figures and Tables. MF and MAR drafted the introductory and concluding sections and merged the different sections into the complete manuscript, which was commented on, revised, and approved by all other coauthors.