

In patients with clinical evidence of MS-like disease and confirmatory MRI, CSF examination can be avoided in most cases

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Diagnosis of MS is based on careful clinical evaluation and MRI examination of the brain and spinal cord. An important role in final diagnosis and in differential diagnosis of MS plays the examination of cerebrospinal fluid. One of the most important results we look for examining CSF is the presence or absence of oligoclonal bands. Their presence in the CSF and not in serum reflects intrathecal immunoglobulin synthesis in the CNS. Oligoclonal bands are present in about 90% of patients with MS, but they are not specific for MS and may be also present in other neurological diseases. About 5-10 percent of patients with MS never show these CSF abnormalities. Therefore CSF analysis itself cannot confirm or rule out a diagnosis of MS and must be part of the total examination. According to the current 2017 revisions of the McDonald criteria of MS, CSF examination is recommended when clinical and MRI evidence is insufficient to support a diagnosis of MS, when there is a presentation other than a typical clinically isolated syndrome, when clinical, imaging and other laboratory features are atypical of MS and in population in which MS is less common (eg. children, older individuals.) Can this examination be avoided in certain cases? According to 2017 criteria, CSF examination is not mandatory in unequivocal demonstration of DIS and DIT based on clinical and MRI data in absence of atypical clinical or imaging features or in patients with a typical clinically isolated syndrome supported by characteristic MRI findings.