Breakdown of the blood-brain barrier precedes symptoms and other MRI signs of new lesions in multiple sclerosis: pathogenetic and clinical implications.
Abstract

From an extensive serial magnetic resonance imaging (MRI) study in multiple sclerosis (MS) we have identified 4 cases in which disruption of the blood–brain barrier, as detected by gadolinium-DTPA enhancement, preceded other MRI abnormalities and in 1 case clinical evidence of the new lesion. This supports the view that a defect in the blood–brain barrier, and therefore inflammation, is an early and possibly crucial event in the pathogenesis of the new lesion in MS. These cases showed a marked discrepancy between MRI abnormality and symptoms. The mechanisms contributing to this disparity are discussed, and it is concluded that far from being surprising it is to be expected.

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Topic:

magnetic resonance imaging

inflammation

blood–brain barrier

gadolinium dtpa

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