A 64-year-old woman presented with a 2-month history of neck pain, wasting, and fatigue followed by gait disturbance, dysarthria, and dysmetria. MRI showed profound hyperintensities in diencephalon, mesencephalon, and cerebellum correlating with symptoms (figure 1). Lymphoma, vasculitis, multiple sclerosis, and tuberculosis were excluded. Neuroborreliosis was diagnosed based on intrathecal immunoglobulin G synthesis (specific antibody index\(^1\) by indirect immunofluorescence 6.9, normal <2) along with abnormal CSF (113 cells/mm\(^3\), protein 2.25 g/L, positive oligoclonal bands).

The specific antibody index is calculated as follows:

\[
\frac{\text{titer of IgG in CSF}}{\text{titer of IgG in serum}} = \frac{\text{total concentration of IgG in CSF}}{\text{total concentration of IgG in serum}}
\]

1:1024 \(\div\) 636 mg/L
1:2048 \(\div\) 8800 mg/L

Intravenous ceftriaxone led to nearly complete resolution of signs, symptoms, and MRI abnormalities (figure 2), demonstrating an exceptional case in contrast to usually unspecific MRI findings in neuroborreliosis.\(^2\)

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Diffuse hyperintense brainstem lesions in neuroborreliosis
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