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IMAGES IN PAEDIATRICS.....

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Nonparalytic poliomyelitis in Lyme borreliosis

An 11 year old girl with a two week history of upper back pain presented with back stiffness and tenderness to palpation of the spinous processes. She had no sensory or motor abnormalities. Magnetic resonance imaging (MRI) showed no vertebral abnormalities, but unexpectedly swelling and vasogenic oedema of the spinal cord (fig 1), predominantly of the grey matter (fig 2), compatible with poliomyelitis. Cerebral spinal fluid (CSF) revealed lymphocytic pleocytosis (421 cells/μl, 99% lymphocytes), raised protein (1096 mg/l), and strongly increased (40-fold) intrathecal production of specific antibodies against *Borrelia burgdorferi*. Antibodies to enteroviruses could not be detected. Back pain, CSF, and MRI abnormalities resolved completely after a two week period of therapy with cefotaxime.

In neuroborreliosis, back pain results from meningoradiculoneuritis (Garin-Bujadoux-Bannwarth syndrome) and myelitis.¹ Lyme myelitis involves the white matter, resulting in paralysis. Nevertheless, in our patient Lyme borreliosis manifested as nonparalytic

Figure 1 Sagittal T₂ weighted MRI of the spinal cord, showing a central high signal intensity extending with its maximum at the level of the lower cervical (arrows) and thoracic (arrowheads) spine.

Figure 2 Axial T₂ weighted MRI of the spinal cord, showing a butterfly shaped high signal intensity of the grey matter (arrows).

poliomyelitis, which itself is usually caused by enteroviruses.

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