

## **Lyme disease manifesting as acute transverse myelitis**

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Clinical signs and symptoms depend on the affected region of the spinal cord, explains Kaiser and colleagues in a recently published case report, "[Lyme myelopathy: Case report and literature review of a rare but treatable disorder.](#)" [1]

The causes of ATM include "demyelinating processes, infections, autoimmune disorders, malignancies, vascular insults, and nutritional deficiencies," writes Kaiser.

There have been documented cases of Lyme-associated ATM, but they are rare. Only 25 cases have been reported in the literature. Three of those cases reported an erythema migrans or another rash and only 5 individuals reported a recent tick bite.

In the journal *Multiple Sclerosis and Related Disorders*, Kaiser describes the case of a 56-year-old man who developed transverse myelitis as a complication of Lyme disease.

The man, who was an avid gardener living in Pennsylvania, developed "right back and flank pain (as if 'punched in the kidney'), as well as numbness and tingling that eventually spread over the abdomen," writes Kaiser, from the University of Pittsburgh.

Doctors initially suspected herpes zoster without a rash. But the illness progressed, despite 7 days of treatment with famciclovir, an antiviral drug.

### **The man's signs and symptoms included:**

- abdominal and back muscle spasms
- tactile allodynia
- formication (skin crawling sensation)
- band-like sensation around his thorax
- chills
- urinary hesitancy
- incomplete voiding
- writhing in pain
- suspended sensory level between T6-10 on the right and T7-11 on the left, characterized by decreased light touch, pinprick, and temperature sensation, as well as allodynia to light touch
- hyperreflexic with a jaw jerk and +3 patellar reflexes bilaterally
- absent superficial abdominal reflexes

His thoracic MRI was consistent with ATM, showing "an expansile T2 hyperintensity that was longitudinally extensive involving T7-10," explains Kaiser.

There was some relief of pain with steroids and an antiviral medication.

Two weeks after admission to the hospital, tests confirmed the man had Lyme disease. He was treated with a 3-week course of intravenous ceftriaxone, which led to a nearly complete resolution of symptoms.

The authors suggest, “including Lyme testing as part of work up for acute transverse myelitis may aid in identifying potentially reversible causes of myelopathy.”

“Our patient had a rare presentation of Lyme neuroborreliosis (LNB), namely Lyme myelopathy evidenced by myelopathic symptoms and signs, imaging abnormalities of the thoracic spinal cord, serological evidence of Lyme, intrathecal synthesis of antibody to Lyme, and significant improvement following antibiotic therapy.”

*Editor's Note:* This case reminds the reader of the importance of adding acute transverse myelitis as a complication of Lyme disease.

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**References:**

1. Kaiser EA, George DK, Rubenstein MN, Berger JR. Lyme myelopathy: Case report and literature review of a rare but treatable disorder. *Mult Scler Relat Disord.* 2019;29:1-6.

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