NEUROBORRELIOSIS AND GUILLLAIN-BARRÉ SYNDROME: COULD BE THE SAME DISEASE?

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INTRODUCTION:
Lyme disease (LD) is a tick-borne illness caused by three pathogenic species of the spirochete *Borrelia*, which lead to a broad spectrum of clinical manifestations. The classic triad of neurologic LD is lymphocytic meningitis, cranial neuropathy and radulocerebritis. These neuropathies are commonly related to multifocal axonal polyneuropathy although rare cases of demyelinating neuropathies have been reported in Lyme disease.

CASE REPORT

♂, 4 year-old boy
10-day history
Rural environment

Lower extremity weakness
Pain
Urinary and fecal incontinence

5-day before
Bacterial tonsillitis

Physical examination
Global symmetrical weakness
Bilateral lower limb areflexia
Gower’s sign
Neck stiffness

Evolution
Without clinical improvement

5-week follow-up
Neurologic examination
almost normal
Autonomic dysfunction
slower recovery

D0
D5
D10

Amoxicillin/clavulanic acid

Immunoglobulin

Ceftriaxone (14 days)

NORMAL
Complete blood count
Acute phase reactants
Ionogram and creatine kinase

Additional investigation
POSITIVE
IgG anti-*Borrelia burgdorferi* (serum by ELISA + Western blot)
IgM anti-*Borrelia burgdorferi* (CSF by ELISA)

Cultures sterile (feces and CSF)
Serology to EBV and Mycoplasma negative
VDRL negative
PCR to enterovirus negative
ANA, dsDNA and anti-GQ1b negative

Reference:

Bacterial tonsillitis

5-day before

Bacterial tonsillitis

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References:


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CONCLUSION
This case report highlights an uncommon presentation of neuroborreliosis. The presence of cerebrospinal fluid (CSF) *Borrelia burgdorferi* antibody, which is highly specific for nervous system Lyme disease, suggests that Borrelia infection and a demyelinating polynueropathy with clinical, laboratory and neurophysiologic findings characteristic of Guillain-Barré syndrome occurred at the same time and are causally related. This has been reported very rarely and usually the CSF profile reveal a slight lymphocytic pleocytosis.