First report of Malaria with Lyme disease as a co-infection

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https://danielcameronmd.com/first-report-malaria-lyme-disease-co-infection/

“As far as we are aware, we are writing the first report of *Plasmodium* spp. and *Borrelia burgdorferi* co?infection (a co?infection of a tropical parasite and a non-tropical bacterium),” explains Neves from the Infectious Diseases Department, Centro Hospitalar São João, Portugal.

The man had returned to Portugal from Angola, where he worked as a welder. Four months earlier while living in Angola, he was diagnosed with malaria and treated with an outpatient regime. But upon his return to Portugal, the man complained of fever, constitutional symptoms, headaches and blurred vision.

Malaria was suspected based on examination of thin blood smears and rapid diagnostic testing. Anti-malarial treatment was initiated and consisted of intravenous quinine (600 mg q8 h) and IV doxycycline (100 mg q12 h).

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But on the second day of admission to the hospital, the man developed an altered mental status with increased lethargy. Doctors suspected Lyme disease during a neurological evaluation, where he showed signs of confusion, disorientation and marked cognitive slowing. “A slight left central facial palsy was described, with no other cranial neuropathies,” states Neves.

“The concomitant diagnosis of borreliosis was based on clinical presentation and positive serology for *Borrelia burgdorferi* sensu lato,” according Neves. “Positive PCR for *B. burgdorferi* sensu lato in CSF also confirmed neuroborreliosis.”

The patient tested positive for *Bb* on the Western blot and treatment was altered to include intravenous ceftriaxone (2 g q12 h) for 14 days. The patient also required treatment for an autolimited antiphospholipid syndrome.

In conclusion, Neves points out the importance of considering co-infections. “Atypical malaria has a broad differential diagnosis, of which co?infections represent a cornerstone. Making such a diagnosis is of vital importance in terms of management and prognosis. This is particularly true in the case of the co?infection of *B. burgdorferi*, due to the potentially devastating neurological and systemic manifestations and the therapeutic implications.”

References:

1. Neves N, Silva-Pinto A, Rocha H, et al. Plasmodium spp. and Borrelia burgdorferi co-infection associated with antiphospholipid syndrome in a returned traveler: a case report. Clin Case Rep. 2017;5(4):471-476.
