

Patients can die when Lyme carditis is not treated

Friday, December 20, 2019

<https://danielcameronmd.com/patients-die-lyme-carditis-not-treated/>

“Death can occur when Lyme carditis is untreated,” writes Marx, from the Centers for Disease Control and Prevention (CDC), [in the *Annals of Internal Medicine*](#). “Before this report, only 9 fatal cases were reported in the literature.”

Case 1: Waiting for infectious disease appointment

“A 57-year-old man from Vermont presented to a primary care physician after 1 week of fever, fatigue, shortness of breath, and chest pain,” writes Marx.

The evidence for Lyme disease included a disseminated erythema migrans rash, heart block, and a positive Lyme ELISA and IgM Western blot test. Yet, the patient was not treated.

Eight days later, the man presented to an emergency room with worsening symptoms. Physicians suspected Lyme disease, but antibiotics were not prescribed. Instead, a consultation with an infectious disease doctor was scheduled. Unfortunately, it never happened.

Only 12 days after his “initial presentation and before his scheduled appointment, the patient was found unresponsive,” writes Marx.

Case 2: Before the first dose of antibiotics

“A 49-year-old woman from Massachusetts presented to an emergency department with severe headache, nausea, and vomiting,” writes Marx. She was diagnosed and treated for a headache.

“Two weeks later, she saw her primary care physician and reported 2 episodes of syncope with bowel and bladder incontinence, persistent fatigue and nausea, and shortness of breath.”

“An ECG during the office visit showed atrioventricular dissociation.” Lyme disease tests were ordered.

Two days later, Lyme disease tests revealed a positive ELISA and IgM Western blot.

She was prescribed doxycycline. But the next day, before she took the first dose, “her cardiac monitoring recorded atrioventricular dissociation evolving to ventricular tachycardia after an R-on-T electrical impulse,” writes Marx.

In both patients, an evaluation of postmortem heart tissue found lymphohistiocytic pancarditis with immunohistochemical and molecular evidence of the spirochete *Borrelia burgdorferi*.

“Spirochetes were directly visualized in endocardial tissue [taken] from the Massachusetts patient,” writes Marx.

Lyme carditis was high on the list of possible diagnoses, according to Marx. Yet, neither patient was treated empirically with antibiotics when Lyme disease testing was performed.

The patients might have received treatment had the guidelines been followed.² “Guidelines recommend simultaneous initiation of empirical antibiotic therapy and Lyme serologic testing when Lyme carditis is suspected,” states Yeung et al.

“Lyme carditis can progress rapidly,” explains Marx, “waiting for confirmatory diagnostic therapy to initiate antibiotic treatment may result in negative outcomes.”

Related Articles:

[Study identifies 189 children with Lyme carditis](#)

[5 things to know about Lyme carditis](#)

[Lyme carditis causes complete heart block in 26-year-old man](#)

References:

1. Marx GE, Leikauskas J, Lindstrom K, Mann E, Reagan-Steiner S, Matkovic E, Read JS, Kelso P, Kwit NA, Hinckley AF, Levine MA, Brown C. Fatal Lyme Carditis in New England: Two Case Reports. *Ann Intern Med.* 2019 Oct 22.
2. Yeung C, Baranchuk A. Diagnosis and treatment of Lyme carditis: JACC Review Topic of the Week. *J Am Coll Cardiol.* 2019;73:717-26.

Latest From the Lyme Disease Science Blog

Patients can die when Lyme carditis is not treated - <https://danielcameronmd.com/patients-die-lyme-carditis-not-treated/>