JAMA review ignores chronic manifestations of Lyme disease

by Daniel J. Cameron, MD MPH

“Multiple trials have shown efficacy for a 10-day course of oral doxycycline for treatment of erythema migrans and for a 14-day course for treatment of early neurologic Lyme disease in ambulatory patients,” the review concludes. Furthermore, “Evidence indicates that a 10-day course of oral doxycycline is effective for HGA [human granulocytic anaplasmosis] and that a 7- to 10-day course of azithromycin plus atovaquone is effective for mild babesiosis.” [1]

The reviewers based their conclusions on 7 clinical trials, 88 cohort, case-control, and systematic analyses, and case reports of anaplasmosis and babesiosis. Nearly 300 reviews, commentaries and case reports of Lyme disease were excluded, and there was no mention of chronic manifestations of Lyme disease. [1]

For example, the reviewers do not include all the findings of a 2008 Norwegian clinical trial. [1] The authors “compared doxycycline (200 mg once daily orally) with ceftriaxone (2 g once daily intravenously) for 14 days in 102 participants from Norway with neurologic Lyme disease and found no treatment failure in either treatment group.” [2]

However, the reviewers fail to mention that 59% of those 102 Norwegian subjects reported residual symptoms at 4 months following treatment. According to the study, 52% of the patients had received oral doxycycline, while 67% were given intravenous ceftriaxone, and 31 patients had objective findings including “facial palsy or other cranial neuropathy (n=11), radiculopathy (n=10), cranial neuropathy and radiculopathy (n=6), paresis (n=2), possible encephalopathy (n=1), and unsteadiness (n=1).” [2]

Nor did the reviewers offer advice for the Lyme disease patients who were not cited. For example, 34% to 62% of two retrospective cohorts remained ill despite antibiotic treatment. [3,4] Out of the 30 adults with ‘definite’ Lyme neuroborreliosis, 57% remained ill an average of 5.7 years after antibiotic treatment. [5] Furthermore, another study found 36% of patients treated with 3 weeks of antibiotics reported new-onset fatigue, 20% widespread pain, and 45% neurocognitive difficulties at six months following treatment. [6]

It’s unclear whether the review findings were influenced by the viewpoint of one of its authors, who denies the existence of chronic Lyme disease. “Considerable confusion and controversy exist over the frequency and cause of this process and even over its [chronic Lyme disease] existence,” [7] writes Gary Wormer, co-author of the 2006 Infectious Diseases Society of America’s (IDSA) treatment guidelines for Lyme disease.

It is a shame that the reviewers ignored findings demonstrating the growing number of chronic manifestations of Lyme disease, such as chronic neurologic Lyme disease, [8] Lyme encephalopathy, [9,10] Post Lyme disease, [11] Post-treatment Lyme disease syndrome, [6] and persistent symptoms with...
a history of Lyme disease. [12]

Disclosure: This blog was written by Dr. Daniel Cameron, first author of evidence-based guidelines that address the chronic manifestations of Lyme disease. [13]

References:

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