

UC Irvine

UC Irvine Previously Published Works

Title

"Lyme": Chronic Fatigue Syndrome by Another Name?

Permalink

<https://escholarship.org/uc/item/7zp4d2sb>

Journal

Clinical Infectious Diseases, 62(1)

ISSN

1058-4838

Author

Barbour, Alan G

Publication Date

2016

DOI

10.1093/cid/civ699

Peer reviewed

“Lyme”: Chronic Fatigue Syndrome By Another Name?

Alan G. Barbour

Departments of Medicine and Microbiology & Molecular Genetics, University of California Irvine

Corresponding Author: Alan G. Barbour, Microbiology and Molecular Genetics, University of California, Irvine, 3012 Hewitt, Irvine, CA 92697-4028, TEL: (949) 824-5626, FAX: (949) 824-8598, e-mail: abarbour@uci.edu

Accepted Manuscript

TO THE EDITOR—

I read with interest the publication by Patrick et al. [1] reporting that patients with a diagnosis of Lyme disease (LD), which was largely dependent on test results from a “non-reference Lyme specialty laboratory”, closely resembled chronic fatigue syndrome (CFS) patients in their symptoms, physical exam, functional impairment, and various laboratory tests. I suspect that this is the experience, as it was for Sigal in the late 1980’s [2], of many infectious diseases and other sub-specialty consultants who are referred patients with a diagnosis of chronic LD. Steere et al. reported in 1993 a high prevalence of CFS or fibromyalgia among patients who had a diagnosis based on “serological test results for Lyme disease in other laboratories” but who were seronegative in the authors’ laboratory [3]. What sets the Patrick et al. study apart from others are two features. The first is the catchment area for subject recruitment: a region of North America where tick-borne transmission of the Lyme disease agent *Borrelia burgdorferi* occurs but is several-fold less frequent than in the northeastern United States [4], where many of the previous studies of this phenomenon were based (reviewed in [5]). The findings of Patrick et al. will likely resonate with practitioners in other areas in North America, Europe, and elsewhere where Lyme disease risk is similarly low or non-existent [6]. The study’s second unique aspect was a design that incorporated a prospective comparison of the patients with “alternatively diagnosed Lyme disease” with patients with the diagnosis of CFS. Patrick et al. went beyond an observational study that relies on historical reference to CFS.

Where I think the Patrick et al. publication fell short was in acknowledgement of the scope and durability of the phenomenon they describe. In a recent set of national HealthStyles surveys sponsored by the Centers for Disease Control and Prevention about 1% of respondents across the United States reported having Lyme disease at some time in their lives, and, moreover, 0.5% of the respondents said they had “chronic LD” at the time of interview [7]. This extrapolates to a million or so people. Another 10% of respondents said that they knew someone with “chronic LD”. Given the choice between a diagnosis of CFS--or in other cases, fibromyalgia--for which there are limited treatment options, and LD, for which antibiotic therapy may promise a cure, is it any wonder that the diagnosis of LD is as common as it is and “Lyme specialty” laboratories stay in business and, for all I know, prosper? Certainly, the authors are justified in their

view that “[i]ndividuals diagnosed with [alternatively diagnosed chronic Lyme syndrome] deserve comprehensive workup and care.” But an important unanswered question of the study is whether the ADCLS patients changed their beliefs about whether they had Lyme disease or not? The fact is there has been insufficient progress, over more than three decades now, in understanding of what is as much a psychosocial and cultural phenomenon as a biological one [8].

Note

Potential conflicts of interest. No potential conflicts of interest.

Accepted Manuscript

References

1. Patrick DM, Miller RR, Gardy JL, et al. Lyme Disease diagnosed by alternative methods: a phenotype similar to that of chronic fatigue syndrome. *Clin Infect Dis* 2015; Advance Access July 4, 2015; doi: 10.1093/cid/civ470
2. Sigal LH. Summary of the first 100 patients seen at a Lyme disease referral center. *Am J Med* 1990; 88:577-81.
3. Steere AC, Taylor E, McHugh GL, Logigian EL. The overdiagnosis of Lyme disease. *JAMA* 1993; 269:1812-6.
4. Government of Canada. National Lyme Disease Surveillance in Canada 2009-2012. Available at: <http://healthycanadians.gc.ca/diseases-conditions-maladies-affections/disease-maladie/lyme/report-rapport-2009-2012-eng.php>. Accessed May 1, 2015.
5. Marques A. Chronic Lyme disease: a review. *Infect Dis Clin North America* 2008; 22:341-60
6. Cottle L, Mekonnen E, Beadsworth M, Miller A, Beeching N. Lyme disease in a British referral clinic. *QJM* 2012; 105:537-43.
7. Hook SA, Nelson CA, Mead PS. U.S. public's experience with ticks and tick-borne diseases: results from national HealthStyles surveys. *Ticks Tick Borne Dis* 2015; 6:483-8.
8. Barbour AG, Fish D. The biological and social phenomenon of Lyme disease. *Science* 1993; 260:1610-6.