

Therefore, although I concur with Kriszbacher et al. that low-dose aspirin should be used in coronary artery disease, I am less convinced that its beneficial effect is due to its antiinflammatory properties. For this reason and because my task was to review mechanisms of disease rather than current therapy, aspirin was not discussed in my article.

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Physician as Serial Killer

TO THE EDITOR: I am extremely disturbed by the implications of Esmail's comments in his Perspective article on the case of Harold Shipman (May 5 issue)¹: Esmail calls for a more questioning attitude toward doctors and better systems for monitoring their work. Dame Janet Smith, the judge who chaired the Shipman inquiry, has been even more outspoken about the need to increase regulation of the profession. But if one asks of which group of doctors Shipman was typical, the answer is none. Shipman was indeed a "one-off," a serial killer who happened to be a doctor. There is undoubtedly a case for better regulation of death certification and of the storage of controlled drugs, but we must resist this extraordinary notion that the Shipman case somehow justifies throwing even more ropes around our much-maligned profession. Many British family doctors are already running scared of the risk of "Shipman" allegations and are unwilling to leave sick, elderly people in the community, preferring to admit them to the hospital given the slightest excuse, simply for fear of criticism. This response cannot be in anyone's best interest.

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1. Esmail A. Physician as serial killer — the Shipman case. *N Engl J Med* 2005;352:1843-4.

TO THE EDITOR: The article by Esmail is especially chilling since there was nothing about Dr. Shipman's behavior that suggested a problem. This was not the case with Michael Swango, who killed more than 35 patients. He was suspected of wrongdoing at each stage of his career. When he was a student, the Department of Obstetrics and Gynecology at Southern Illinois University, to its credit, "checked the box" indicating that it had reservations about his fitness for medical practice. Others on the faculty believed that it was unfair to fail a student at the end of four years of medical school, and their support allowed Swango to graduate. Over the next 10 years, suspicion of his misdeeds was ignored by a series of supervisors. James Stewart's gripping account of this disaster, *Blind Eye*,¹ is a worthy read for those who evaluate medical trainees.

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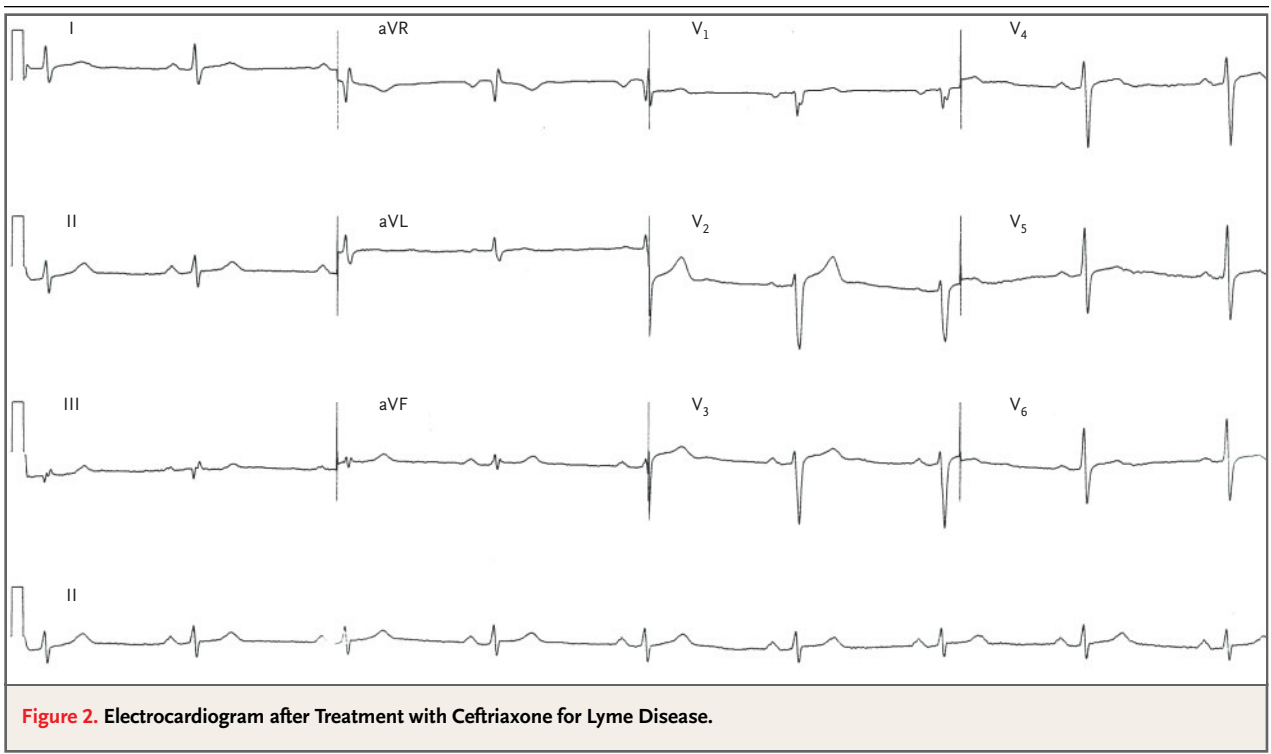
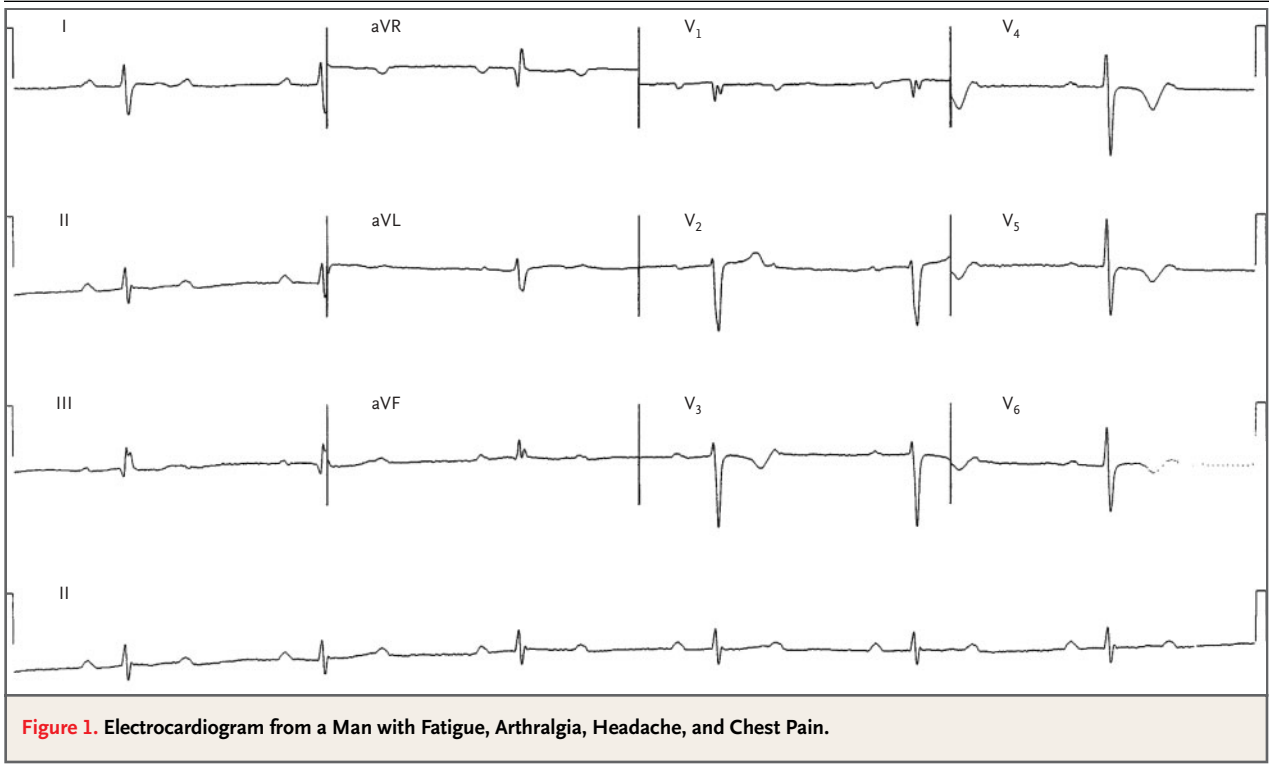
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Medical Mystery: Bradycardia — The Answer

TO THE EDITOR: The medical mystery in the June 2 issue¹ involved a 49-year-old man who reported fatigue, arthralgia, and headache, along with a two-day history of chest pain; an electrocardiogram (Fig. 1) had been obtained. The patient was hospitalized. Myocardial infarction was ruled out. The

findings on echocardiography were unremarkable. A serologic analysis for Lyme disease was positive, with confirmation by Western blotting. On further questioning, the patient noted that he had received a tick bite six weeks earlier and that it had been associated with a brief febrile illness without a rash.



Intravenous administration of ceftriaxone (2 g daily) was begun. On day 4, the second-degree heart block resolved, but the first-degree heart block and ischemic changes persisted. A nuclear-isotope study with dipyridamole revealed an anterior lateral reversible defect, thought to be consistent with ischemia or myocarditis. The results of cardiac catheterization were normal. Two weeks after intravenous ceftriaxone therapy, the electrocardiogram was normal (Fig. 2) and the patient was well. Heart block associated with Lyme disease typically responds to antimicrobial therapy and rarely requires placement of a permanent pacemaker.

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Editor's note: We received 1575 responses to this medical mystery; 59 percent were from physicians in practice, 23 percent from physicians in training, 10 percent from medical students, and 8 percent from other readers. Forty-nine percent of the responses were from 79 countries outside the United States. Forty-three percent of the respondents correctly diagnosed Lyme disease, whereas 25 percent suggested a cardiac-conduction abnormality, and 16 percent suggested myocardial ischemia.

Others provided explanations that included drug toxicity (e.g., due to atorvastatin), in 3 percent of the responses; endocrine dysfunction (e.g., hypothyroidism), in 3 percent; and other diagnoses (e.g., endocarditis, acute rheumatic fever, Chagas' disease, and sarcoidosis), in 10 percent. We received many insightful comments, including the following:

The high degree of atrioventricular nodal block in combination with constitutional symptoms, arthralgia, and headache all point toward a diagnosis of Lyme disease. That he presented in June to a health care facility in Connecticut clinches the diagnosis!

— Toby Maher, M.R.C.P.

Oh the beautiful springtime in Connecticut!
The flowers, the bees, the mice, the deer,
and the tick.
Don't rush to a pacemaker;
IV ceftriaxone will do the trick.

— Thomas J. Lester, M.D.

1. Rosenberg R. A medical mystery — bradycardia. *N Engl J Med* 2005;352:2337.

Natalizumab and Progressive Multifocal Leukoencephalopathy

THE BRIEF REPORTS ON NATALIZUMAB WERE REFERRED TO BIOGEN IDEC, THE MANUFACTURER, WHICH OFFERS THE FOLLOWING RESPONSE: After learning of one confirmed and one suspected case of progressive multifocal leukoencephalopathy (PML) in patients treated with natalizumab, Biogen Idec and Elan quickly notified the Food and Drug Administration (FDA) and other regulatory authorities. We worked closely with the FDA to understand the significance of these findings and to determine the appropriate action. On February 28, we voluntarily suspended all dosing and marketing of natalizumab; swift and decisive action was guided by our commitment to patient safety. Immediate efforts also included a comprehensive review of all adverse events to search for unrecognized occurrences of PML. We identified as suspicious a report of malignant astrocytoma and requested a reevaluation. The case was subsequently confirmed to be PML.¹

The review of data on these patients, who are described in this issue of the *Journal*,¹⁻³ is part of a larger analysis under way in consultation with regulatory authorities and the National Institutes of Health to assess the risk of PML in natalizumab-treated patients. An independent panel with expertise in the diagnosis and management of PML is reviewing all suspicious and ambiguous findings to evaluate them for possible PML. A better understanding of the risk of PML will be possible only once the evaluation is complete. We hope to share findings from this evaluation by the end of the summer.

Unfortunately, we know little about PML and JC virus, but important observations can be gleaned from these case reports. One report suggests that clinical PML may be preceded by JC viremia.¹ Another demonstrates that PML is not uniformly fatal.² It is possible that testing for the appearance of JC virus in plasma, along with a high degree of clinical sus-