Chronic Q Fever: Relevance of Serology

To the Editor—We read with interest the recent paper on Q fever by Healy et al [1], which describes the results of initial and follow-up serologic analysis after an outbreak of Q fever, and the discrepancy in test results obtained from different reference laboratories. This article raises the problem of management of asymptomatic patients with a chronic serological profile (phase 1 serum level of immunoglobulin G [IgG], $\geq 800$ mg/dL).

We conducted a retrospective analysis of 35 patients with chronic Q fever whose conditions were followed in our institution between 1996 and 2009, who had an initial ($n = 26$) or secondary (post-acute phase) ($n = 9$) serological diagnosis of chronic Q fever. Of the 35 patients, 23 were asymptomatic, 9 had definite endocarditis (Duke criteria), 2 had hepatitis, and 1 had optical neuritis. The asymptomatic patients included 7 with possible cases of endocarditis, according to the Duke criteria (phase 1 IgG level, $\geq 800$ mg/dL and valvular disease).

Of the 16 ($n = 23$ minus 7) asymptomatic patients with a chronic serological profile, 9 received no treatment; all 9 were healthy. Clinical and serological controls were conducted in 2010 for 7 of these patients: 5 had a healing serological profile and 2 had serological controls (follow-up <1 year) that showed a regression of the phase 1 IgG or IgA titers.
Our retrospective analysis shows that a chronic serologic profile among asymptomatic patients is not uncommon. We believe that patients with acute Q fever could show increasing phase 1 IgG titer during the weeks following the disease.

Two recent papers reporting results of serological follow-up in cohorts of acutely infected individuals showed that many of the patients presented a chronic serological profile during their follow-up. None of these patients developed symptoms, suggesting chronic Q fever, and a secondary decrease in phase 1 IgG titers was frequently noted. In 1 article, results of a polymerase chain reaction (PCR) assay in blood specimens were negative [2, 3].

Diagnoses of chronic Q fever based on serology alone should be considered with caution. Clinical data and the results of PCR assays in blood could be key elements for the management of patients.

Notes

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