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Letter to the editor

Infection due to *Borrelia burgdorferi* most likely does not occur in Cuba

Dear Editor,

Rodriguez et al. have published results of measuring antibodies to *Borrelia burgdorferi* in a collection of sera from 247 subjects, randomly selected from a population of 980 living in a Cuban village.¹ Five subjects (2%) were interpreted as having IgG antibodies to *Borrelia burgdorferi*.

Samples were tested by an in-house IgG Western blot. Antigens were prepared from whole cell *B. burgdorferi sensu strictu* (B31). When a different scoring method was used, 11 subjects (4%) were found positive.

There is no evidence presented in the article to suggest that a relevant *Borrelia*-competent tick-vector is present in this Cuban village. There is no clinical epidemiological evidence of infection due to *B. burgdorferi*. Ecological studies supporting the presence a zoonotic life cycle of *B. burgdorferi* in local ticks or animals are not available.

Even if birds sometimes could transport a *Borrelia*-infected tick to Cuba, it is unlikely that the infection would establish itself in the subtropical climate of Cuba.

The low level of seroreactivity may most likely be entirely explained by non-specific reactivity. Even if *B. burgdorferi* has some relatively unique immunodominant antigens, many antigens would also be similar to those of many other bacteria. This could explain the somewhat strong reactivity observed in some of the 19 bands identified in the immunoblot.

The study presents a misleading interpretation of a natural, but unexplained, background seroreactivity. This study could lead to unnecessary concern and inappropriate diagnostic testing and treatment of patients for a disease that does not exist. This is very problematic in a country with scarce health care resources.

Conclusions about endemic presence of infections with *B. burgdorferi* should not be based on serological results alone.

Conflict of interest

The author declares to have no conflict of interest.

REFERENCE

- Rodriguez I, Fernandez C, Sanchez L, Martinez B, Siegrist HH, Lienhard R. Prevalence of antibodies to *Borrelia burgdorferi sensu stricto* in humans from a Cuban village. *Braz J Infect Dis*. 2012;16:82–5.

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