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Rickettsia parkeri rickettsiosis and its clinical distinction from Rocky Mountain spotted fever.

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BACKGROUND: *Rickettsia parkeri* rickettsiosis, a recently identified spotted fever transmitted by the Gulf Coast tick (*Amblyomma maculatum*), was first described in 2004. We summarize the clinical and epidemiological features of 12 patients in the United States with confirmed or probable disease attributable to *R. parkeri* and comment on distinctions between *R. parkeri* rickettsiosis and other United States rickettsioses.

METHODS: Clinical specimens from patients in the United States who reside within the range of *A. maculatum* for whom an eschar or vesicular rash was described were evaluated by > or =1 laboratory assays at the Centers for Disease Control and Prevention (Atlanta, GA) to identify probable or confirmed infection with *R. parkeri*.

RESULTS: During 1998-2007, clinical samples from 12 patients with illnesses epidemiologically and clinically compatible with *R. parkeri* rickettsiosis were submitted for diagnostic evaluation. Using indirect immunofluorescence antibody assays, immunohistochemistry, polymerase chain reaction assays, and cell culture isolation, we identified 6 confirmed and 6 probable cases of infection with *R. parkeri*. The aggregate clinical characteristics of these patients revealed a disease similar to but less severe than classically described Rocky Mountain spotted fever.

CONCLUSIONS: Closer attention to the distinct clinical features of the various spotted fever syndromes that exist in the United States and other countries of the Western hemisphere, coupled with more frequent use of specific confirmatory assays, may unveil several unique diseases that have been identified collectively as Rocky Mountain spotted fever during the past century. Accurate assessments of these distinct infections will ultimately provide a more valid description of the currently recognized distribution, incidence, and case-fatality rate of Rocky Mountain spotted fever.

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