

ettsioses in the United States. Until the 1970s, the United States was the world leader when it came to describing new species of *Rickettsiae*, in particular those from ticks [2]. The oversimplification of the clinical diagnoses of rickettsioses as a result of unspecific serological testing has led to the conclusion that all tick-borne rickettsioses in the United States were caused by *Rickettsia rickettsii*. This conclusion was consistently reported in American reference books [2] and was in contradiction with the finding of many rickettsiae in ticks that earlier investigators suspected were pathogenic, including *R. parkeri* and *R. canadensis* [3]. Moreover, evidence of a new genotype of *Rickettsia* identical to *R. parkeri* discovered in 1990 among tested “*R. rickettsii*” human isolates was falsely considered an atypical *R. rickettsii* genotype despite the genetic evidence [3]. This illustrates the effect of dogma on the study of tick-borne rickettsioses in the United States. Interest in rickettsioses in the United States reappeared in recent years because of the development of many new diagnostic tools (such as polymerase chain reaction) and because of the attention related to the fact that rickettsioses were considered by the Centers for Disease Control and Prevention as possible bioterrorism agents after 11 September 2001; however, the use of *Rickettsia* for bioterrorism is highly unlikely. Therefore, a considerable increase in the number of declared cases of Rocky Mountain spotted fever was noted, along with a striking decrease in mortality [4]. I suggested that this was a massive diagnostic error, because the number of reported annual cases increased from <700 in 2001 to 2288 in 2006 without any reason [4]. During the same time, fatality rates decreased from 1.4% to 0.7%. This shows that the reported cases of Rocky Mountain spotted fever were indeed very benign.

Over the past 20 years, new pathogenic rickettsiae have been discovered on all continents, which gave rise to the creation of the new field of emerging rickettsioses [2] (Table 1). For a long time, the absence

Emerging Rickettsioses Reach the United States

The paper by Shapiro et al [1] on the description of a new tick-borne rickettsiosis highlights the dramatic need for more investigators in the field of emerging rick-

Table 1. Data on Rickettsial Species or Subspecies Associated with Tick-Borne Diseases in the Past 26 Years

<i>Rickettsia</i> species or subspecies	Name of disease	Country or countries where first described	Year of discovery
<i>R. japonica</i>	Japanese fever	Japan	1984
<i>R. conorii</i> subsp <i>caspia</i>	Astrachan fever	Russia and France	1991
<i>R. africae</i>	African tick bite fever	Zimbabwe and France	1992
<i>R. honei</i>	Flinder's Island spotted fever	Australia	1992
<i>R. sibirica</i> subsp <i>mongolitimonae</i>	Lymphangitis-associated rickettsiosis	France	1996
<i>R. slovaca</i>	Tick-borne lymphadenopathy	France	1997
<i>R. heilongjiangensis</i>	Far east spotted fever	China	1996
<i>R. aeschlimanni</i>	None	France	2002
<i>R. parkeri</i>	None	United States	2004
<i>R. massiliae</i>	None	Italy and France	2005
<i>R. raoultii</i>	Tick-borne lymphadenopathy	France	2009
<i>Rickettsia</i> 364D	None	United States	2010

of motivated investigators delayed the evolution of this field in the United States. It is interesting to note that, in the short time since 2004, there have been 3 tick-borne rickettsioses discovered in the United States: *R. parkeri* [5], *R. massiliae* [6], and 1 related to *R. rickettsii* [1]. For the 2 documented cases of infection, diagnosis was based on use of culture and polymerase chain reaction of a skin biopsy [1, 5], which I have long recommended for the diagnosis of emerging rickettsioses [2].

The new field of emerging rickettsioses illustrates the importance of tools and physician interest in the microbiological world [7]. It is necessary to be careful and to break with dogma when teaching or writing about diseases and to base all information on current, upgraded data. New tools make it possible to rapidly expand the field of knowledge regarding emerg-

ing rickettsioses and make it necessary to keep an open mind. The gap between the United States and the rest of the world regarding the discovery of emerging rickettsioses is being filled, and this is reassuring.

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