

sequencing (491 nt) showed 100% identity to the *R. parkeri* sequence from GenBank (U43802).

These procedures enabled the identification of *R. parkeri* in 2.56% of the *A. triste* ticks from Uruguay. Previous findings of *R. parkeri* DNA in *A. triste* ticks from Uruguay (5) are corroborated by our isolation of a Uruguayan strain of *R. parkeri* in cell culture. The only other country where *R. parkeri* has been previously reported is the United States, where it is associated with *A. maculatum* ticks and is the causative agent of an emerging rickettsiosis (3). As *A. maculatum* and *A. triste* are established in at least 12 other Latin American countries (10), the distribution of *R. parkeri* in the Americas is likely continental. Finally, our results corroborate recent reports (3,5) that suggest *R. parkeri* is the causative agent of previously reported cases of rickettsiosis in Uruguay.

This study was financially supported by Foundation of Support to the Research of the State of São Paulo (FAPESP).

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5. Venzal JM, Portillo A, Estrada-Peña A, Castro O, Cabrera PA, Oteo JA. *Rickettsia parkeri* in *Amblyomma triste* from Uruguay. *Emerg Infect Dis.* 2004;10:1493–5.
6. Horta MC, Pinter A, Cortez A, Soares RM, Gennari SM, Schumaker TTS, et al. *Rickettsia felis* (Rickettsiales: Rickettsiaceae) in *Ctenocephalides felis felis* (Siphonaptera: Pulicidae) in the State of São Paulo, Brazil. *Arq Bras Med Vet Zoot* 2005;57:321–5.
7. Labruna MB, Whitworth T, Horta MC, Bouyer DH, McBride JW, Pinter A, et al. *Rickettsia* species infecting *Amblyomma cooperi* ticks from an area in the State of São Paulo, Brazil, where Brazilian spotted fever is endemic. *J Clin Microbiol.* 2004;42:90–8.
8. Roux V, Raoult D. Phylogenetic analysis of members of the genus *Rickettsia* using the gene encoding the outer membrane protein rOmpB (*ompB*). *Int J Syst Evol Microbiol.* 2000;50:1449–55.
9. Regnery RL, Spruill CL, Plikaytis BD. Genotypic identification of rickettsiae and estimation of intraspecies sequence divergence for portions of two rickettsial genes. *J Bacteriol.* 1991;173:1576–89.
10. Guglielmo AA, Estrada-Peña A, Keirans JE, Robbins RG. Ticks (Acari: Ixodida) of the Neotropical Zoogeographic Region. International Consortium on Ticks and Tick-borne Diseases, Atlanta, Houten, The Netherlands; 2003.

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Influenza-related Death Rates for Pregnant Women

To the Editor: Articles about influenza in the January 2006 issue of *Emerging Infectious Diseases* discussed a pandemic possibly as profound in its effect as the 1918–19 pandemic, when attack rates were >20% worldwide and death rates were 1%–2%. Then, as when subsequent virus antigenic shifts have occurred, all age groups were affected. Governments are now preparing contingency plans against the effects of an expected further antigenic shift.

However, insufficient consideration may have been given to how, in the absence of effective prophylaxis against a novel strain of influenza virus, to avoid deaths on the scale seen in the fall and winter of 1918–19. In particular, the vulnerability of pregnant women and their offspring appears to have been forgotten. Bland reported on pregnant influenza patients in Philadelphia and elsewhere in the fall of 1918; of 337, 155 died (1). Harris obtained by questionnaire from obstetricians medical histories of 1,350 pregnant patients in Maryland and in 4 large US cities (2). Pneumonia developed in half (678) of these patients and 365 died. Death rates from pneumonia were >40% for every month of pregnancy; fetal loss

References

1. Conti-Diaz IA, Rubio I, Somma Moreira RE, Perez Bormida G. Rickettsioses cutáneo ganglionar por *Rickettsia conorii* en el Uruguay. *Rev Inst Med Trop Sao Paulo.* 1990;32:313–8.
2. Diaz IA. Rickettsioses caused by *Rickettsia conorii* in Uruguay. *Ann N Y Acad Sci.* 2003;990:264–6.
3. Parola P, Paddock CD, Raoult D. Tick-borne rickettsioses around the world: emerging diseases challenging old concepts. *Clin Microbiol Rev.* 2005;18:719–56.
4. Venzal JM, Guglielmo AA, Estrada Peña A, Cabrera PA, Castro O. Ticks (*Ixodida: Ixodidae*) parasitising humans in Uruguay. *Ann Trop Med Parasitol.* 2003;97:769–72.

Correction: Vol. 12, No. 10

In Human Prion Disease and Relative Risk Associated with Chronic Wasting Disease by Samantha MaWhinney et al., an error occurred in the list of references. Missing from the list is reference no. 36: Belay ED, Maddox RA, Gambetti P, Schonberger LB. Monitoring the occurrence of emerging forms of Creutzfeldt-Jakob disease in the United States. *Neurology.* 2003;60:176–81.

The corrected list of references appears in the online article at <http://www.cdc.gov/ncidod/EID/vol12no10/06-0019.htm>

We regret any confusion this error may have caused.

was >40% in all months but the fifth (37%).

According to a contemporaneous report from England, the influenza death rate for pregnant women was 25.4% (3). These inquiries into pregnancy must have been biased toward severe cases, but the influenza pandemic in 1918–19 may nevertheless have decreased live births in England and Wales, which reached new lows in the first half of 1919 (4). A controlled American study during 1975–1979 has since confirmed that pregnant women are at risk for influenza even in interpandemic years (5).

After an interpandemic interval >35 years, any antigenic shift may

again seriously affect young adults, including many pregnant women. Preparedness should therefore ensure the availability of timely and comprehensive management of influenza during pregnancy.

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References

1. Bland PB. Influenza in its relation to pregnancy and labour. *Am J Obstet Dis Women Child.* 1919;79:184–97.
2. Harris JW. Influenza occurring in pregnant women: a statistical study of thirteen hundred and fifty cases. *JAMA.* 1919;2: 978–80.
3. Local Government Board, 48th Annual Report 1918–1919. Supplement containing the report of the medical department. London: Her Majesty's Stationery Office; 1919. p. 16.
4. Registrar General's Report 1918/19. London: Her Majesty's Stationery Office; 1919. p. xxviii.
5. Mullooly JP, Barker WH, Nolan TF. Risk of acute respiratory disease among pregnant women during influenza A epidemic. *Public Health Rep.* 1986;101:205–11.

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