



## ***Ehrlichia ruminantium* – an emerging human pathogen**

**To the Editor:** *Ehrlichia ruminantium*, transmitted by ticks of the genus *Amblyomma*, causes heartwater in ruminants in sub-Saharan Africa, Madagascar and some Caribbean islands, but there are no authenticated reports that the organism can cause disease in non-ruminants or humans. No reliable vaccine is available and infected animals frequently die before treatment with tetracyclines can be initiated. Serological tests for *E. ruminantium* lack specificity and the most reliable and sensitive test for the organism involves polymerase chain reaction (PCR) amplification and probing for a section of the organism genome.

We report here on 3 fatal cases of suspected ehrlichiosis involving unrelated individuals who were not overtly immunocompromised but for whom strong probe-positive results were obtained. The first of these, for whom few clinical details are available, died approximately 3 weeks after her dog died of 'biliary fever'.

The second, a 6-year-old child, died a week after hospital admission, with the clinical picture of encephalitis with complaints of severe headache, sleepiness and an unsteady gait. The child deteriorated rapidly. A brain computed tomography (CT) scan revealed echo-dense lesions in the

cerebral hemispheres. After the child died a postmortem examination was performed. Results were unremarkable, other than for the brain, where severe vasculitis affecting the midbrain and pons regions was demonstrated. Prominent pulmonary oedema was reported.

The third case was also a child, who died after a short illness. The clinical features resembled those of the second case.

Molecular evidence based on small subunit ribosomal (srRNA) and pcS20 gene sequences indicates that *E. ruminantium* was present in DNA from all 3 individuals although the aetiological origin of the infections differed.

The possibility that these deaths resulted from ehrlichiosis must be considered and investigated.

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