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.

M T E P Allsopp
Department of Molecular Biology
Onderstepoort Veterinary Institute
Pretoria

M Louw
Department of Anatomical Pathology
National Health Laboratory Services, Tshwane Academic Division
Pretoria

E C Meyer
Department of Family Medicine
University of Pretoria

Although we have achieved a great deal since being established in 1994, there is still a great deal to be done to improve the sexual and reproductive health of the people of South Africa.

Young people (particularly young women) bear a disproportionate share of the burden of sexual ill-health. Therefore, ideally, provision of sexual health information should begin at school. It should be made available in ways that are appropriate in terms of gender, age and level of understanding, and be sensitive to local culture.

Our young people are our future and it is vital that they have access to good sexual and reproductive health services so that they can make informed decisions about their health. Most particularly, they need to be able to protect themselves from unplanned pregnancies, and from sexually transmitted infections such as HIV/AIDS. With this in mind, we hope to expand our work with young people, and funding permitting, to establish a team specifically to work with them to raise awareness about sexual and reproductive health issues and facilitate their access to comprehensive, safe services.

We believe that the best way to prevent the spread of STI/HIV/AIDS is through awareness raising and behaviour change initiatives. Our teams will continue to look for new ways to reach all communities with safer sex messages.