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1 ZOO NOTIC AND VECTOR-BORNE DISEASES

a Crimean-Congo haemorrhagic fever

Two cases of Crimean-Congo haemorrhagic fever (CCHF) were confirmed in mid-September 2014. The first case-patient, a 48-year-old man from a farm situated between Prieska and Niekerkshoop in Northern Cape Province, removed a bontpoot tick (*Hyalomma* sp.) on the same day that he became ill with fever and malaise. He presented on 09 September to a nearby hospital with epistaxis, bleeding of the gums and haemoptysis. Blood tests done on admission revealed abnormal findings as follows: thrombocytopenia (platelet count $3 \times 10^9/L$ on admission, which subsequently improved to $121 \times 10^9/L$); elevated hepatic transaminase levels (ALT 180 IU/L); leukopenia (white cell count $2 \times 10^9/L$, rising to $3.58 \times 10^9/L$). The patient recovered uneventfully. Blood samples tested for CCHF at the National Institute for Communicable Diseases (NICD) were negative on CCHF-RT PCR, but positive for anti-CCHF IgG and IgM antibodies as demonstrated via indirect immunofluorescence

testing. Seroconversion at this stage of illness is generally a good prognostic indicator for recovery.

The second case-patient, a 40-year-old male farming with cattle and sheep in Namibia, was admitted to a hospital in Northern Cape Province. He reported a tick bite three days before falling ill. Blood tests done on admission revealed a platelet count of $170 \times 10^9/L$ (which subsequently decreased to $26 \times 10^9/L$), and elevated hepatic transaminase levels (AST 200 IU/L, later increasing to 300 IU/L). The patient was transferred to a hospital in Bloemfontein for further management. Serial blood tests showed a further increase in transaminasemia (AST 589 IU/L, ALT 295 IU/L) and an increase in the white cell count to $11.05 \times 10^9/L$. Blood samples submitted to the NICD tested positive for the presence of CCHF virus RNA by RT-PCR. Anti-CCHF virus IgM antibodies were also detectable. The patient continued to deteriorate and died a few

days after admission.

Including the two cases presented here, a total of three cases of CCHF has been reported in South Africa for 2014 to date. The other case of CCHF was confirmed in a patient from Free State Province in January of this year; the case-patient recovered uneventfully.

CCHF was first recognised in South Africa in 1981. Since then, cases are reported almost every year, mostly from the semi-arid farmland areas of Northern Cape (61 of 195 cases to date) and Free State (45 of 195 cases) provinces. Cases of CCHF have, however, been reported from all nine provinces of South Africa. Farmers are more prone to CCHF virus infection than the general population

because of their higher likelihood of exposure to ticks. Almost two-thirds of confirmed CCHF cases in South Africa are associated with direct tick exposures. Livestock and certain wildlife species may also be infected with CCHF virus, although they will not develop overt disease. These animals are only viraemic for a short period during which contact with their blood and tissues may also transmit the virus to humans.

More information on CCHF can be sourced from the NICD website www.nicd.ac.za.

Source: Division of Public Health Surveillance and Response and Centre for Emerging and Zoonotic Diseases, NICD-NHLS