

3 ZOOBOTIC AND VECTOR-BORNE DISEASES

a Rabies

A case of rabies in an 8-year-old child from Free State Province was laboratory confirmed on 16 July 2015 by the NICD.

On 02 May 2015, the child was bitten on the left upper leg by a dog in Meheleng, located close to Ficksburg in Free State Province. He received wound treatment and a tetanus toxoid booster vaccination at a local district healthcare facility. Tragically, he did not receive rabies post-exposure prophylaxis (PEP) despite the category III wound inflicted by a potentially rabid dog. The dog was assessed by a local veterinary professional who deemed the animal healthy and in oestrus, despite reported behavioural changes that had initially raised the possibility of rabies. The dog died a few days later, but the owner failed to notify the veterinarian. The child presented initially with numbness at the wound site, abdominal and back pain, headache, loss of appetite, reluctance to drink liquids, and priapism. On consultation at a local district healthcare facility he was referred to a hospital in Ficksburg, but discharged the same day with a diagnosis of paraphimosis. He was seen again at the same hospital complaining of pain and weakness of the left leg, but again discharged the same day with an appointment to return for X-rays three days later. However, he deteriorated rapidly over the next two days and presented to a private general practitioner with seizures and difficulty breathing; he was admitted and immediately transferred to a hospital in Bethlehem with a working diagnosis of suspected rabies. He was noted to exhibit typical signs and symptoms of rabies, including hydrophobia, hypersalivation, delirium and hallucinations. Rabies immunoglobulin

and rabies vaccine were administered. Multiple saliva samples (n=5), cerebrospinal fluid, sera (n=2) and skin biopsies (n=3) were submitted but tested negative for rabies. The provision of PEP after the onset of clinical illness is not indicated, since it has no positive bearing on the outcome of disease and moreover confounds ante-mortem diagnostic investigations. The child died on 06 July 2015. Post-mortem brain specimens were submitted to the NICD and tested positive, confirming the diagnosis of rabies. This case constitutes a healthcare system failure; the child should have received rabies PEP in accordance with the national guidelines when he presented to the healthcare facility following the injury, given the high-risk exposure. Rabies PEP is invariably effective in preventing infection after exposures if delivered appropriately, and a thorough risk assessment must be performed for any animal exposure.

Five cases of human rabies have been confirmed for South Africa in 2015 to date. These cases were reported from Limpopo (n=2), KwaZulu-Natal (n=1), Eastern Cape (n=1) and Free State (n=1) provinces. In addition, a suspected case of rabies from Eastern Cape Province was reported but could not be confirmed by laboratory testing.

The National Rabies Guidelines and more rabies-related information can be accessed on the NICD website: www.nicd.ac.za.

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