b Rabies

Eight confirmed cases of human rabies have been diagnosed by the NICD in South Africa during 2015 to date. These cases were reported from Limpopo (n=3), KwaZulu-Natal (n=1), Free State (n=1) and the Eastern Cape (n=3) provinces. A probable case of rabies from KwaZulu-Natal could not be verified by laboratory testing but the patient had a clinical and exposure history compatible with a rabies diagnosis.

Two cases of rabies have been confirmed in the past month from the Eastern Cape Province. The first case involved a 36-year-old male from Bizana. He was attacked by a neighbour's dog two months before falling ill. The dog was reportedly aggressive and also attacked two other people, but nothing further was known about the dog. The patient received one dose of rabies vaccine. On 27 October 2015, he became ill. Hydrophobia was noted. The patient died on the same day. A number of saliva and cerebrospinal fluid specimens were submitted for ante-mortem diagnosis of rabies at the NICD but tested negative. Rabies was confirmed on post-mortem brain tissue by fluorescent antibody testing and RT-PCR.

The second case was in an 8-year-old boy also from Bizana. The patient was bitten on the cheek by a stray dog on the 1st October 2015. The child was taken to a local clinic for follow up but no rabies vaccine or immunoglobulin was reportedly available. The child was admitted to hospital with hydrophobia and restlessness and died on the 7th November 2015. A saliva swab collected post mortem tested negative for rabies by reverse transcription PCR. The patient's blood, collected one day before death was positive for anti-rabies IgG and IgM antibodies. In the absence of a history of rabies vaccination, this finding supports a clinical diagnosis of rabies. Rabies antibodies in the blood and CSF typically develop after the first week of illness. Few patients survive into the second week of illness without intensive care. Generally serology is not useful for the diagnosis of rabies in the acute presentation

A case of rabies was also confirmed in a 6-year-old boy from in the Thulamele Local Municipality, Limpopo Province. The child was reportedly scratched by a dog on the lower legs in February 2015 and had sustained only minor wounds. The patient did not present to a facility for care. The child was admitted to hospital in the third week of October 2015 suffering from fever, headache, vomiting, confusion, agitation, delirium, hyperactivity, autonomic instability, insomnia, paraesthesia at the site of the healed wounds and hypersalivation. Saliva specimens were submitted to the NICD for rabies investigation and one of the samples tested positive by real time reverse transcription PCR. The child died and no further specimens were collected for post mortem verification of rabies.

Rabies is invariably fatal after onset of symptoms, but disease is preventable by the administration of rabies post-exposure prophylaxis. An updated poster, published in 2015 summarizing the guidelines for rabies post-exposure prophylaxis is available on the NICD website (www.nicd.ac.za). The root cause of post-exposure management failures in these three tragic cases is inadequate awareness of the risk of rabies and failure to administer post-exposure prophylaxis. Patients with a possible rabies exposure should receive wound management (antibiotics and a tetanus toxoid booster) and rabies post-exposure prophylaxis (rabies immunoglobulin and rabies vaccine as described in the national guidelines).

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