ZOONOTIC AND VECTOR-BORNE DISEASES

An update on rabies in South Africa

For 2021 five cases of human rabies have been laboratory confirmed in South Africa to date, including two cases from KwaZulu-Natal (KZN) and three from Limpopo (LPP) provinces. The most recent three cases (one from KZN and two from LPP) were identified in children reporting exposures to domestic dogs or cats. One of the cases had presented at local clinics following the exposure event and rabies post-exposure prophylaxis (PEP) was administered. The reasons for PEP failure in this case is unclear (investigation pending), but it is often associated with inappropriate administration of the PEP. For example, when an exposure occurs, it is imperative that all wounds, however small, are washed copiously with water and soap. This is followed by administration of rabies vaccine and infiltration with rabies immunoglobulin (RIG) in all wounds.

The first case involved a six-year-old girl from LPP, with no clear history of a specific exposure incident. The child developed signs and symptoms of rabies in May 2021, presenting with confusion, body weakness, hyporeflexia, a mild fever and seizures. An antemortem-collected saliva sample tested positive for rabies by RT-PCR.

The 2nd and 3rd cases involved toddlers from LPP and KZN, respectively. The three-year-old female had reportedly been bitten by a dog two weeks prior to falling ill and it was unclear if medical attention had been sought following the incident. She presented with classic neurological features of rabies, including insomnia, confusion and logorrhea. Her saliva sample tested positive for rabies by RT-PCR. In the case of the 2-year-old boy, he had sustained facial injuries after being bitten by a dog and was given rabies PEP, receiving both RIG and the course of rabies vaccine. Three weeks later he was hospitalized with headache, fever, emesis and seizures. Clinical features compatible with paralytic rabies were noted and the MRI showed features of hypoxia and encephalitis. In this case, an antemortem-collected nuchal biopsy specimen tested rabies RT-PCR positive. Typically, incubation periods for rabies are six to eight weeks, but shorter or longer incubation periods are not unheard of. Shorter incubation periods are often linked with exposures to highly innervated areas of the body, or to the face, head and shoulders.

For more information on rabies and disease prevention, please visit the NICD website: https://www.nicd.ac.za/diseases-a-z-index/rabies/

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