

ZOONOTIC AND VECTOR-BORNE DISEASES

An update on rabies in South Africa

As of 23 August 2021, a total of seven cases of human rabies was laboratory-confirmed in South Africa. The cases were reported from the Limpopo (n=3), KwaZulu-Natal (n=2) and the Eastern Cape (n=2) provinces. In addition, to date, three probable cases of human rabies have been identified from KwaZulu-Natal Province (including the case reported here).

The most recent case was a 5-year-old girl from East London, Buffalo City Metropolitan Municipality, Eastern Cape Province. The child was attacked by a dog on 9 July, sustaining facial wounds and was purportedly given post-exposure prophylaxis (PEP) but was then lost to follow-up. It is unclear whether the PEP included rabies immunoglobulin (RIG). She experienced fever, muscle spasms, anorexia, confusion, sleeplessness, and hyper-salivation two weeks later and died on 28 July in hospital. On 2 August, rabies was confirmed in a brain sample from the deceased child using a direct immunofluorescent assay test.

A case of probable rabies was reported in a 40-year-old man from Empangeni, King Cetshwayo district, KwaZulu-Natal Province. He sustained an unprovoked attack by a stray dog in mid-June, suffering multiple bites to his face, left forearm, and both palms of his hands. The next day, he received PEP at the local hospital, which included wound washing, RIG, and rabies and tetanus vaccinations. Five weeks later, he developed fever, nausea, vomiting, loss of appetite, agitation, restlessness, confusion, hallucinations, tachycardia, hypothermia, sweating, hyper-salivation, symptoms in keeping with rabies disease. He later died in hospital on 25 July, several days after his illness began.

A single antemortem saliva sample collected tested negative for rabies, which is insufficient to exclude the diagnosis of rabies. No further samples were available for laboratory investigation.

Further to our previous report (<https://www.nicd.ac.za/wp-content/uploads/2021/07/An-update-on-rabies-in-South-Africa-2.pdf>), an additional case of rabies was confirmed in a domestic dog from Tarlton, Krugersdorp. In total, since the last week of June 2021, a total of 5 jackal, one honey badger and the domestic dog reported here were confirmed with rabies from the Mogale City Municipality. Mass rabies vaccination campaigns in dogs have been underway in the West Rand since June 2021. Over 2 552 dogs have been vaccinated since the start of the outbreak. Public and healthcare worker awareness campaigns are also being carried out to increase awareness and knowledge of rabies in the affected community and for health care workers serving the affected community. In August 2021, two cases of rabies were confirmed in dogs from Khayelitsha, City of Cape Town, Western Cape Province. At the time of this publication, investigations into the source of the outbreak and possible human exposures were underway. Mass rabies vaccination campaigns in dogs have been employed in the affected area since 24 August 2021.

The website www.nicd.ac.za contains more information on rabies. World Rabies Day is celebrated on 28 September every year to bring attention to the prevention and control of rabies around the world. Visit the Global Alliance for Rabies Control website for more information (<https://rabiesalliance.org/world-rabies-day>).

Source: Centre for Emerging Zoonotic and Parasitic Diseases, NICD-NHLS; januszp@nicd.ac.za

East African Trypanosomiasis - South Africa, ex-Zambia

A 43-year-old South African professional hunter was active in the Eastern Province of Zambia during July and August 2021, where he recalled experiencing a number of tsetse fly bites. He developed an acute febrile illness, which did not respond to self-medication with an antimalarial. He was admitted to a hospital in Lusaka, Zambia, and a diagnosis of trypanosomiasis was suspected. The test for SARS-CoV-2 was negative. He was transferred for further management to a hospital in Pretoria, South Africa. On admission, jaundice, scattered petechiae and a typical trypanosomal chancre on one ankle, were noted. Marked thrombocytopenia, moderate leucopenia and mildly deranged liver functions were found.

A very scanty trypomastigote parasitaemia was noted on a Giemsa-stained blood smear, which was confirmed by PCR. The patient has responded well to suramin (course presently being completed), and examination of the CSF was negative on microscopy and PCR. In contrast to the 2017-2019 period, when several patients with East African trypanosomiasis were medivaced to South Africa for treatment, COVID-19-related travel and tourism restrictions and economic constraints have probably reduced the number of humans exposed to the disease in endemic areas of Central and East Africa during 2020-2021.

Source: Centre for Emerging Zoonotic and Parasitic Diseases, NICD-NHLS; johnf@nicd.ac.za