

FIRST DOCUMENTED CASE OF AFRICAN HORSE SICKNESS IN A DOMESTIC DOG, WITHOUT APPARENT INGESTION OF HORSE MEAT

Strange but true – a dog living in a controlled and monitored environment, the Malelane Research Unit (MRU – a Good Clinical Practice and Good Laboratory Practice accredited research facility), contracted African horse sickness without having ingested any horse meat. This is the first scientifically documented case of a dog being infected without having eaten horse meat.

The dog died after a week-long illness despite therapy, and the RT-qPCR tests at the post-mortem showed the organ samples to be strongly positive for African horse sickness virus (AHSV).

All previously documented outbreaks of AHS in dogs have followed the ingestion of horse meat. Transmission of AHSV to dogs by midges (*Culicoides* spp) has not been considered to be important in the epidemiology of AHS, as it was believed that midges do not readily feed on dogs.

The MRU is located in the lowveld of the eastern Mpumalanga Province about 20km from the southern border of the Kruger National Park and within 5km of other zebra populations on privately owned land. At the time when the case occurred there were 57 dogs at the facility, that were individually housed, with complete vaccination, arrival date, birth date, microchip number and previous treatments all meticulously recorded for each dog. Investigation into the food fed to the dogs revealed that no horse meat was used as an ingredient. All the dogs had been at the facility for a minimum of 4 years, having either been born there, or arrived as puppies. They had no contact with other domestic animals (horses, cattle, sheep, and rabbits).

It is therefore concluded that it is likely that AHS is able to be contracted in dogs by natural infection. This case has a significant practical implication for the understanding of the transmission and control of AHS. Although vector-borne transmission is likely in this case, further investigations are required before conclusions can be drawn about possible vectors and the transmission and control of the disease.

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