TOXOPLASMOSIS - A SERIOUS "EXOTIC" DISEASE FOR EX SITU CAPTIVE WILDLIFE

M.F. Stidworthy
m.stidworthy@izvg.co.uk

Toxoplasma gondii can infect most species of warm-blooded animal, including birds, and toxoplasmosis is recognised to be a significant cause of clinical disease and mortality in captive wildlife. The susceptibility of particular species is likely to be related to their geographical origins and evolutionary exposure to the parasite.

Populations of domestic cats associated with human habitation are significant (the estimated UK cat population in 2008 was 7.2 million). Cats are the definitive host for Toxoplasma gondii, shedding oocysts in their faeces, and free ranging pet and feral cats are responsible for widespread environmental contamination. The prevalence of T. gondii infection worldwide is closely related to the presence of cats. Routes of infection include the ingestion of oocysts from cat faeces or soil and water contaminated by them, ingestion of tissue cysts from transport hosts such as infected rodents and birds, and even of invertebrates that have consumed oocysts.

Case examples from captive wildlife in the United Kingdom and overseas are presented, highlighting species at particular risk, the diversity of clinical presentations, the value of complete necropsy including central nervous examination, and the importance of supplementary diagnostic techniques such as immunohistochemistry. Consistent with previous reports, particularly susceptible mammalian species included ring tailed lemurs (Lemur catta), common squirrel monkeys (Saimiri sciureus), meerkats (Suricata suricatta), and Pallas’ cats (Otocolobus manul). The diagnosis was also made in several callitrichids, a woolly monkey (Lagothrix sp.), a Western grey kangaroo (Macropus fuliginosus), a snow leopard (Panthera uncia) and a cheetah (Acinonyx jubatus). In birds, immunohistochemically confirmed systemic toxoplasmosis was identified in a colony of speckled mousebirds (Colius striatus). In several further mammalian and avian species, toxoplasmosis was suspected but confirmation by ancillary techniques could not be pursued.

References

