
NEOSPOROSIS IN AN ABORTED SOUTHERN WHITE RHINOCEROS (*Ceratotherium simum simum*) FETUS

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Abstract

Although only first recognized as a disease entity in the 1980's, neosporosis is now considered a major cause of abortion in cattle across the globe.¹ In other species, abortion or stillbirth has been associated with natural infection of *Neospora* sp. in goats, horses, a deer (*Cervus eldi siamensis*) and two twin antelope (*Tragelaphus imberberis*).¹

In December 2008, a Southern white rhinoceros (*Ceratotherium simum simum*) aborted a 7-month gestation, male fetus. The dam was estimated to be between 7 and 9 yr of age when wild caught in South Africa in 2002. In 2003 she was transferred to an open range zoological facility in Australia. Her previous calf born at the zoo was healthy. On gross post-mortem examination, the liver of the aborted fetus appeared enlarged and rounded, and a small segment of intestine was herniated through the umbilical opening. On hematoxylin and eosin stained sections, foci of necrosis were noted in the hepatic parenchyma associated with low numbers of lymphocytes, plasma cells and neutrophils in addition to basophilic, granular material (mineral). Protozoal zoites, confirmed as *Neospora* sp. by immunohistochemistry, were identified within the hepatic lesions and within the cerebellum, but with little to no inflammatory reaction in the latter site. Based on the presence of *Neospora* sp. zoites within necrotic hepatic lesions, the abortion was attributed to the protozoal infection. Literature searches reveal only one report of neosporosis in a white rhino calf and no prior cases of *Neospora* related abortion in this taxa.²

LITERATURE CITED

1. Dubey, J. P. 2003. Review of *Neospora caninum* and neosporosis in animals. Korean J. Parasitol. 41: 1-16.
2. Williams, J. H., I. Espie, E. van Wilpe and A. Matthee. 2002. Neosporosis in a white rhinoceros (*Ceratotherium simum*) calf. Tydskr. S. Afr. vet. Ver. 73: 38-43.