First report on occurrence of Babesia infection in Nilgai Boselaphus tragocamelus from central India

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Babesiosis, a tick-borne infectious haemoproteozoan disease of cattle, buffaloes, sheep, goats, equines, dogs, cats and wild mammals, is caused by intra erythrocytic piromas of the genus Babesia. Generally, this disease is characterized by pyrexia, haemolytic anaemia, haemoglobinuria, jaundice and death. Although sufficient literature is available on babesiosis in domestic animals, meagre information is available on the infection in wild animals. This is an attempt to document the first report of Babesia infection in a Nilgai (Boselaphus tragocamelus) from Aarmoni, Gadchiroli district, central India.

A male Nilgai (approximately 6-7 years) belonging to forest area of Gadchiroli district was presented for post mortem examination to the Nagpur Veterinary College, Nagpur. Heart blood smears were prepared, stained with Leishman’s stain and examined microscopically. At necropsy the lesions found were enlarged spleen, congestion of liver and kidney and pale mucous membranes indicating severe anaemia which are in agreement with Radostits et al. (2000) who also reported dark brown discoloration of the liver in acute infection of Babesia. The blood smear examination revealed Babesia sp. organisms. Babesiosis has been recognized in many wild animals such as Jackal, Zebra, Reindeer, Spotted Deer, Square-lipped Rhinoceros, Bandicoot (Tripathy et al. 1983), Wild Cat (Mudalair et al. 1950), and Leopard (Baviskar et al. 2007). A male Mithun (Bos frontalis), of Nandankanar Biological Park, Bhubaneswar, Orissa was also found positive for Babesia sp. and successfully treated with two doses of Diminazene aceturate (Tripathy et al. 1983). Lingard & Jenning (1904) described spontaneous piroplasmosis in deer belonging to Bareael area in Uttar Pradesh. Hilpertshauser et al. (2006) conducted a survey of the occurrence of ruminant Babesia sp. in Switzerland in which they identified Babesia sp. organisms from ticks from wild ruminants (Deer, Roe Deer and Chamois) by PCR. The animals was kept in confinement for some period which may have led to stressful condition, which is in consonance with the findings of Penzhorn (2006) who have discussed development of clinical babesiosis in the Black Rhino under stressful conditions like confinement after capture. Disease management views all over the world seem to be changing and diseases among wild animals are being recognized as an important obstacle in wildlife conservation and management. Babesiosis is a widely distributed disease, occurring from the tropics to the Arctic and reports of this disease in wide variety of wild animals are increasing and needs special attention from the management point of view.

References


Lingard, A. & E. Jennings (1904). A preliminary note on a piroplasmosis found in man and in some of the lower animals. Indian Medical Gazette 39: 161-165.


