

Short communication

A CASE OF TRYPANOSOMIASIS IN A CAPTIVE TIGER (*Panthera tigris*) FROM CENTRAL INDIA

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Abstract: Trypanosomiasis in cattle, buffalo, horses, camels, and dogs has been of common occurrence in various parts of India. However, because of its acute and fatal nature, the reports on wild animals are very few, making it a rare incident in such species. For instance, tigers have occasionally been reported to harbour *Trypanosoma* spp. infection. In one such case, a 15-year-old male tiger was brought to the Wildlife Research & Training Centre, Gorewada, after being captured from the Bramhapuri forest division. Upon arrival, the animal was moved to a squeeze cage for detailed examination, where it was observed that the visible mucous membrane was slightly pale and watery. During clinical examination, the animal showed intermittent fever (103.5-105°F), panting, reluctance to move, a sleepy mood, head pressing, and delirium, alongside vomiting. Following these findings, a blood sample was collected from the tail vein specifically to test for blood protozoa. Laboratory examination revealed trypanosomes in thin blood smears. Based on the clinical signs and microscopic findings, the condition was diagnosed as Trypanosomiasis, and appropriate clinical treatment was initiated.

Keywords: Trypanosomiasis, Tiger, Wildlife disease, Blood protozoa, India, *Trypanosoma* spp.

Introduction

Trypanosomiasis is a vector-borne parasitic disease caused by protozoa of the genus *Trypanosoma*. It is widely prevalent in tropical and subtropical regions and poses a major threat to livestock productivity. In India, the disease is commonly observed in cattle, buffaloes, horses, camels, and dogs, primarily caused by *Trypanosoma evansi* (Surra). In contrast, occurrences in wild carnivores, including tigers (*Panthera tigris*), are rarely reported. This may be due to underdiagnosis or rapid disease progression leading to mortality before clinical investigation. Documenting such cases is crucial for understanding disease ecology, especially in regions where wildlife and livestock interfaces are prominent.

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Materials and Methods

A 15-year-old male tiger was captured from the Bramhapuri forest division and transported to the Wildlife Research & Training Centre, Gorewada, for evaluation and care. The animal was restrained in a squeeze cage for examination. Observations included: pale and watery mucous membranes, intermittent fever (103.5–105°F), panting, reluctance to move, lethargy and sleepy demeanor, neurological signs such as head pressing and delirium and vomiting

Blood samples were collected aseptically from the tail vein for haematological and parasitological examination. Thin blood smears were prepared, stained, and examined under a microscope for the presence of haemoprotezoan parasites.

Results and Discussion

Microscopic examination of blood smears revealed motile, elongated trypanosomes characteristic of *Trypanosoma* spp. The parasites displayed: slender body shape, undulating membrane and free flagellum. Based on the clinical signs and laboratory confirmation, the case was diagnosed as Trypanosomiasis.

Trypanosomiasis in wild carnivores is seldom reported but may occur due to spillover infections from domestic animals, especially in regions with high livestock density. The Bramhapuri forest region is known for human-wildlife interaction, increasing the likelihood of vector-mediated transmission.

Clinical signs observed in this tiger fever, anemia, neurological manifestations, and lethargy are consistent with acute trypanosomiasis reported in domestic species. Neurological signs such as head pressing and delirium suggest possible central nervous system involvement.

The diagnosis via blood smear examination remains a rapid and effective field diagnostic method, although more sensitive techniques such as PCR could further confirm species identification.

Early detection is critical, as the disease can be fatal if untreated. The case emphasizes the need for routine screening of rescued wildlife, particularly in endemic regions.

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References

- [1] Soulsby, E.J.L. (1982). *Helminths, Arthropods and Protozoa of Domesticated Animals*.

- [2] Radostits, O.M., et al. (2007). *Veterinary Medicine: A Textbook of the Diseases of Cattle, Horses, Sheep, Pigs and Goats*.
- [3] Desquesnes, M., et al. (2013). Trypanosoma evansi and Surra: A review. *Veterinary Parasitology*.
- [4] OIE (World Organisation for Animal Health). Trypanosomiasis guidelines.