

A case of *Trypanosoma congolense* savannah type infection and its management in a dog

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ABSTRACT

A case of *Trypanosoma congolense* savannah type infection in a 4-year old German shepherd dog weighing 26-kg was presented to the Small Animal Clinic, University of Nairobi, Kenya, with the history of anorexia and difficulty in breathing. The clinical manifestations were fever, pale mucous membrane, dyspnea and wasting. Blood examination revealed the existence of trypanosome parasites, and showed mild anemia. Internal Transcribed Spacer (ITS) based polymerase chain reaction confirmed the presence of *Trypanosoma congolense* savannah type. Along with supporting therapy, the case was successfully managed using diminazene aceturate injection (dosed at 3.5 mg/kg body weight) through intramuscular route. Complete recovery of the case was observed on day 6 of post-treatment.

Keywords

Dogs, German shepherd, Natural infection, Recovery, *Trypanosoma congolense* savanna type

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INTRODUCTION

Animal trypanosomosis constitutes a serious impediment to livestock production and economic development in tsetse infested regions of Sub-Saharan Africa (Matete, 2003; Nimpaye et al., 2011; Abakpa et al., 2013). *Trypanosoma congolense* (*T. congolense*) is considered to be the most important cause of animal trypano-

somosis in East Africa (Matete, 2003), which is transmitted cyclically by *Glossina* sp. (Gillingwater et al., 2010), and mechanically by other biting flies. Dogs have been shown to be highly susceptible to *T. congolense* which makes them an important sentinel for infection (Greene, 2006; Museux et al., 2011). Dogs have also been reported to be infected following consumption of trypanosome infected carcasses or ingestion of insect vectors (Montenegro et al., 2002).

Four different types of *T. congolense* found in different ecological zones were identified using deoxyribonucleic acid (DNA) probes; these were *T. congolense* forest type, *T. congolense* kilifi type, *T. congolense* savannah type, and *T. congolense* tsavo type (Majiwa et al., 1993; Clausen et al., 1998). All these types are pathogenic, and their infection in dogs is characterized by parasitaemia, leucopenia, and anemia (Bengaly et al., 2002; Sidibe et al., 2002).

Although, *T. congolense* infection is common in dogs, only savannah (Gow et al., 2007) and forest (Desquesnes et al., 2012) types have been reported to cause natural infection in dogs. However, the dogs died during the disease management period. A number of trypanosomacidal agents have been used effectively against trypanosomosis in canines (Rani and Suresh, 2007). However, there are scanty reports on response of therapy to a natural infection of *T. congolense* savannah type in dogs.

The current report described a case in a dog that was naturally infected with *T. congolense* savannah type, and its successful therapeutic management.