TRYPANOTOLERANCE OF KIRDIMI AND SAHELIAN GOATS OF CHAD TO *TRYPANOSOMA CONGOLENSE* INFECTION

Guelmbye Ndoutamia

*Biochemistry and Biotechnology, Laboratoire de Farcha, Ndjamena, Chad*

Sahelian and Kirdimi goats of Chad were studied in an experimental farm for trypanotolerance. Fifty five (55) animals, 28 sahelians and 27 kirdimis, whose hemoglobin types had been determined, were experimentally infected, each one with $10^6$ trypanosomes (*Trypanosoma congolense* IL1180 stock, savanna type). The animals were regularly monitored for six months for clinical symptoms, bodyweight, hematological and biochemical parameters. The infection induced sudden significant weight loss in Sahelian goats. On the other hand, no significant weight variations were observed in Kirdimis. The average prepatent period was 7 and 12 days for Sahelian and Kirdimi goats, respectively. Parasitemia appeared to develop quickly in Sahelian goats (within a month). It was well under control in Kirdimis throughout the experimental period, and some self-cure cases were even observed. Sahelian goats, apparently more susceptible to the infection, displayed during the acute phase of the disease lack of appetite, pale ocular membranes, watering eyes, staggering movements and occasional diarrhoeas. The packed cell volume was stable in Kirdimis. It dropped rapidly in Sahelian goats and often reached the critical point of 15%. At that threshold the animals were unable to stand up and died unless a trypanocide treatment was applied. The *T. congolense* trypanosomosis evolution was mainly associated in Sahelian goats and at different levels with important changes in haematological and biochemical parameters. This study shows that Kirdimi goats control *T. congolense* infections better than Sahelian goats.