

Short Report**Alterations in thyroid function in**

hormones were significantly decreased in the serum of patients with trypanosomiasis compared to the controls. In contrast, TSH appeared to be increased, but the results were not statistically significant.

The clinical survey revealed physical and intellec-

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Short Report

Strain identification of *Trypanosoma cruzi* isolated from *Panstrongylus geniculatus* in Trinidad, West Indies

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The presence of *Trypanosoma cruzi* in Trinidad was first reported by DOWNS in 1963, who isolated the parasite from a rodent, *Rattus rattus*. Subsequently the parasite was found in reduviid bugs (FISTEIN, 1966). Although there is serological evidence suggestive of human transmission (FISTEIN, 1981), to date no confirmed human cases have been recorded. This apparent absence of human infection is possibly related to the transmission cycle of the local strain of *T. cruzi*. As part of an investigation into the epidemiology of American trypanosomiasis in the island, preliminary isoenzyme analysis was done on isolates derived from naturally infected specimens of *Panstrongylus geniculatus* collected from a bat cave.

Cultured isolates were prepared using the procedures described by MILES *et al.* (1980) and were sent to the London School of Hygiene and Tropical Medicine for isoenzyme characterization. Thin layer starch-gel electrophoresis of 7 enzymes (ALAT, ASAT, GPI, G6PD, MPI, PGM and PEP; MILES *et al.*, 1980) was used to determine the strain of *T. cruzi*. These enzymes were selected because collectively the electrophoretic patterns obtained can be used to distinguish zymodemes 1, 2 and 3.

Based on the patterns obtained, the isolate was identified as belonging to zymodeme 3. This zymodeme, though occurring rarely, seems to have a

wide but sporadic distribution, having been recorded in Venezuela, Colombia, Brazil and Panama (MILES & CIBULSKIS, 1986). It is frequently isolated from burrowing animals especially armadillos (MILES, 1983; MILES *et al.*, 1980) and has also been isolated from *P. geniculatus* (see MILES, 1983). Zymodeme 3 seems to be predominantly associated with sylvatic transmission cycles, which could explain the lack of human infections in Trinidad, where *T. cruzi* has been recorded only from sylvatic reservoir hosts, such as armadillos and sylvatic species of triatomine bugs (OMAH-MAHARAJ, 1987). It must be noted however that Z3 has been found to be associated with human infections in Brazil and Venezuela, therefore the likelihood of similar infections in Trinidad cannot be ignored.

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