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Uganda Trypanosomiasis Research Organization, Tororo, Uganda

# *Trypanosoma brucei* infection in domestic pigs in a sleeping sickness epidemic area of Uganda

Short communication

N. M. Okuna, J. S. P. Mayende, A. Guloba

There appears to be no report of porcine trypanosomiasis in Uganda apart from that of Wilson (1949) who recorded *T. simiae*. In West Africa, the pig has been identified as a possible reservoir of *T. b. gambiense* (Gibson et al., 1978).

The aim of this study was to investigate the possibility that domestic pigs may be reservoirs for *T. b. rhodesiense* in the sleeping sickness epidemic areas of Uganda.

In July 1984, 304 indigenous domestic pigs from the northern shores of Lake Victoria, Uganda, were examined for trypanosomiasis. Sleeping sickness has been epidemic in the area since 1976 (Abaru and Matovu, 1981). The pigs were examined for parasitaemia by the haematocrit concentration technique (HCT) (Woo, 1969). Blood from pigs found to be positive by HCT was sub-in-oculated into mice and the mice were examined daily for parasitaemia, by microscopy, until found positive or for 60 days. Thin blood films were made from positive pigs and mice for morphological identification of the trypanosome species.

Thirty-six (11.8%) of the pigs were found positive by HCT and 16 isolates were made from mouse inoculations. Morphologically all trypanosomes diagnosed appeared to belong to the *T. brucei* subgroup. 6 of the isolates were tested by the blood incubation infectivity test (Rickman and Robson, 1970) and two were found resistant to human plasma.

This study shows that *T. brucei* infection is quite prevalent in domestic pigs in the tsetse fly infested northern shores of Lake Victoria where sleeping sickness is epidemic. The disease in pigs was not diagnosed earlier probably because infected animals appear clinically normal.

Pigs are kept in close contact with people in this area, where *G. fuscipes fuscipes* has been shown to be peridomestic (Okoth, 1982). The pigs are almost never treated against trypanosomiasis as they are presumed to be free from the

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disease. Therefore, it is quite likely that domestic pigs are a reservoir host for T. b. rhodesiense in the sleeping sickness epidemic area surveyed; further investigation is necessary in order to clarify their role.

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