

Survey of Human African Trypanosomiasis in Ukwuani and Ethiope East Local Government Areas, Delta State, Nigeria

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ABSTRACT

Human African Trypanosomiasis (HAT) is a protozoal disease that classically manifests with a sleeping syndrome and, thus, referred to as sleeping sickness. Infective bites of tsetse flies (*Glossina* spp.) transmit the parasitic causative agents *Trypanosoma brucei gambiense* and *T.b. rhodesiense* to humans in the West and East African sub regions, respectively. Nigeria still remains in the World Health Organization's classification of countries endemic for HAT. During the period, 2000-2006, a study conducted to determine the prevalence of HAT in Abraka of Ethiope East Local Government Area (LGA) of Delta State, Nigeria, revealed 119 were positive HAT cases following screening by CATT (Card Agglutination Test for Trypanosomiasis). We hereby report findings from a more recent survey conducted in 2012 to update the epidemiological and entomological status of sleeping sickness in Delta State, Nigeria. A total of 1979 people located in 26 villages from two LGAs (Ukwuani and Ethiope East) were serologically screened for *T.b. gambiense* by using CATT. The survey revealed HAT suspect cases in Umutu 1 (1.1%) and Umuebu 6 (9.8%) communities equivalent to 7 (4.7%) in Ukwuani LGA and 4 (3.0%) in Ethiope East LGA that involved 7 (0.57%) out of 1220 females and 4 (0.453%) out of 759 males. Biconical traps pitched at various locations of human activities along River Ethiope (Ethiope East) and River Okumeshi (Ukwuani) caught and identified 42 tsetse flies (*Glossina palpalis palpalis*) mostly along the River Okumeshi. The density of the tsetse population was 3.0 flies/trap/day and infection rate was 6.6%. Thus, River Okumeshi, rather than River Ethiope and its environs constitute the epicenter of tsetse activities thereby predisposing communities to risk of HAT. A more extensive and collaborative studies of HAT and tsetse flies are required to adequately define the risk of the disease in the Delta region of Nigeria.

Keywords: Human African trypanosomiasis, CATT, Epidemiology, Delta state, Nigeria

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