AFRICAN SLEEPING SICKNESS

The Disease

African Sleeping Sickness is caused by a blood-borne protozoan infection. Trypanosomes are pathogenic parasites that are transmitted to humans through the tsetse fly. Once inoculated, the trypanosomes will multiply in the lymph region. Ultimately, it will cross into the Central Nervous System. If left untreated, African Sleeping Sickness is always fatal.

Symptoms

The first symptoms may include high fever, headaches, joint pain, and itching. A chancre may also develop at the site where a trypanosome was inoculated. Once the trypanosome has crossed the blood-brain barrier and reaches the Central Nervous System, the symptoms include confusion, disturbances of the sleep cycle, poor coordination, insanity, and coma. Once in this stage, chances of successful treatment of African Sleeping Sickness are very low.

Treatment

There are only four drugs available to treat a trypanosome infection. The challenge is treating it on time. Currently, pentamidine, suramin, melarsoprol, and eflornithine are the drug of choice when treating the first stages of the infection. Melarsoprol and eflornithine are usually used when the trypanosomes have infiltrated the CNS. All of these drugs have severe secondary effects which include nausea, diarrhea, convulsions, and anemia. Even with treatment, fatality is almost certain when the infection has reached the second stage.

The Tsetse fly

The Tsetse fly is a facilitator in transmitting the Trypanosomes into the blood system of a human. Tsetse flies suck on blood for the nutrients, and thus inject the trypanosomes into the blood system. Trypanosomes multiply in the flies' salivary glands after the flies feast on a human or animal that has already been infected by the disease.

Characteristics of Trypanosomes

The characteristic organelle of the trypanosome is a centrally located nucleus, an anterior kinetoplast, a second DNA-containing organelle, and the posterior flagellum.
Work Cited

• www.who.int/mediacentre/factsheets/fs259/en/
• www.cdc.gov/ncidod/dpd/parasites/trypanosomiasis/default.htm
• www.nlm.nih.gov/medlineplus/ency/article/001362.htm