THE MORPHOLOGY OF HERPETOSOMA TRYPANOSOMES IN SMALL RODENTS IN POLAND.

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Three species of Herpetosoma trypanosomes were found in small rodents examined in several localities in Poland. The investigations were carried out in Karkonosze Mountains, Mazurian Lakeland, and Białowieża Forest in 1996 and 1997. Blood samples taken from the tip of the tail were examined for the presence of trypanosomes using microhaematocrit centrifugation technique. In addition, isolated parasites were cultured in vitro in Veal Infusion Medium (VIM).

The following Herpetosoma species were found in the animals examined: 1. Trypanosoma evotomys in the bank vole (Clethrionomys glareolus) in Karkonosze Mountains, Białowieża Forest and Mazurian Lakeland; 2. Trypanosoma microti in the field vole (Microtus agrestis) in Karkonosze and in root vole (Microtus oeconomus) in Białowieża; 3. Trypanosoma sp. in yellow-necked mouse (Apodemus flavicollis) in Mazurian Lakeland.

Giemsa-stained blood films were used for morphological and mensural characteristic of trypomastigota forms isolated from the examined rodents. An „Analysis” program combined with a video camera and a microscope (1500x) was used in these studies. The mensural values of Trypanosoma evotomys and Trypanosoma microti from the voles fell well within the range observed by other authors. The following morphological parameters were investigated: PK - posterior end to kinetoplast; KN - kinetoplast to nucleus centre; PN - posterior end to nucleus centre; NA - nucleus centre to anterior end; BL - body length; L - total length; FF - free flagellum; W - width; N - length of nucleus; KI - kinetoplast index (PN/KN); NI - nucleus index (PN/NA);

The mensural data obtained for Trypanosoma sp. from the yellow-necked mouse (Apodemus flavicollis) differed from the parameters for trypanosomes found in the genus Apodemus. In this case, the applied light microscopical techniques did not permit us to identify the species. Therefore, further studies with the use of electron microscopical and biochemical methods are planned.