

HEMATOLOGICAL VALUES OF FRESHWATER TURTLES, *Hydromedusa tectifera*, SURVIVORS FROM THE ENVIRONMENTAL ACCIDENT AT IGUAÇU RIVER - ARAUCARIA - PARANA STATE

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In the present study, freshwater turtles, *Hydromedusa tectifera*, inhabiting the Iguazu River, at Araucaria, Parana State, Brazil, were captured and blood samples collected for hematological evaluations. The turtles survived from an environmental accident in July 2000, due to a leakage of 4 million liters of oil into the river. It is known that the oil possesses many toxic products that might affect the potential survival of plants and animal species. Blood was collected from 56 freshwater turtles by venipuncture (jugular vein). Complete blood counts were performed, including RBC counts, packed cell volumes, hemoglobin concentrations, WBC counts, and differential counts. RBC and WBC counts were determined manually by using a hemocytometer (0.01% toluidine blue as diluent). Packed cell volumes were determined after centrifugation of a sample in a microhematocrit tube. Hemoglobin values were assayed spectrophotometrically by using a commercially-available kit. Differential WBC counts were determined in blood smears with Wright stain. The leukocytes were differentiated in heterophils, neutrophils, eosinophils, basophils, lymphocytes and monocytes. The mean values obtained were: RBC – 578,357/ μ l; PVC (HCT) – 30 %; HB – 13.8 g/dl; WBC – 35.397 / μ l; heterophils – 79%; neutrophils – 4%; eosinophils – 7%; basophils – 8%; lymphocytes – 2% and monocytes – 0.2%. The red cell counts published vary widely within the entire Reptilia class. Many factors influence these disparities: erythrocyte size, age, sex of the animals from which blood was collected, the time of the year, nutritional state of the animals, and pathologic conditions that may have been present. This study will determine the hematological values for normal control turtles providing data for the correct interpretation. The leukogram values will be also compared with normal control animals. Therefore, in a wide variety of healthy reptiles, heterophils account for between 30 to 45% of the total leukocytes. This study found values of 79% for heterophils, suggesting a heterophilia, often associated with inflammatory responses. The lymphocyte count is highly variable and is influenced by many factors: age, sex, season, nutritional state, parasitism, and diseases. The blood was collected during winter and it has been reported that lymphocytes tend to decrease during winter and hibernation. These hematological values must serve primarily as guidelines against which results from control turtles can be compared.

Key Words: freshwater turtles; environmental accident; hematology values.