

Glycemic indexes in rodents *Holochilus sciureus* (Rodentia: Cricetidae): Comparison between positive and negative animals naturally for *Schistosoma mansoni*

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Rodents of the species *Holochilus sciureus* may participate in the maintenance of the biological cycle of the parasite *Schistosoma mansoni*. This parasite acts as an etiological agent of the infectious and parasitic disease called schistosomiasis mansoni, depending on, for their development, of definitive hosts and intermediates (snails of the genus *Biomphalaria* spp.). In definitive hosts, this parasite is lodged in the liver, causing irreversible damage to this organ, it may be contributing to an inhibition of glycogen metabolism (responsible for the release of glucose). Thus, we aimed to verify and compare differences in glycemic values among *H. sciureus* rodents naturally positive and negative for *S. mansoni*. The study was carried out in the municipality of São Bento, Maranhão, located in the region of Baixada Ocidental Maranhense, where it is a reference for the meeting of rodents of this species, which in the region are associated with *Biomphalaria* spp., realization of the cycle of wild schistosomiasis. The rodents were captured in this region by traps of the tomahawk type, which were deposited in some places of the flooded field, feature of the region. After the capture, the animals were taken to the laboratory of the school farm of São Bento, where they were analyzed by the Kato-Katz method, to prove the positivity for *S. mansoni*. Then, the specimens collected were adequately anesthetized, and were performed, the biometric analyzes and the blood collection by the hepatic portal vein. The collected blood was analyzed based on the procedures of the Bioclin - Monoreagente ® Glucose Kit, and subsequently, analysis of the comparison of glycemic levels. In relation to positivity, showed that out of every five rodents analyzed, at least two were infected by *S. mansoni*. As for glycemic levels, positive rodents for *S. mansoni* presented lower values (due to the damage done to the organs responsible for the production of glucose), than the negative rodents, that presented higher values. This difference in glucose levels was more noticeable among male rodents, than in females rodents, because they did not show any variation between the values, this was due to the probable existence of mechanisms at the hormonal level that are modulating and preventing the reactions of the *S. mansoni* parasitic process. Therefore, the biochemical effects of schistosomiasis presented a negative influence on the glycemic state of the definitive wild hosts.

key-words: wild host; schistosomiasis; blood glucose.