Protein Caracterization and Ultrastructural Profile of *Schistosoma mansoni* Adult Worm Treated with Prazinquantel

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Schistosomes are human parasitic flatworms that constitute an important public health problem in several developing countries. This helmintiasis has been one of the most prevalent diseases that infect humans. Praziquantel (PZT) is the most useful drug in the schistosomiasis control. In view of recent concern about tolerance or resistance to the PZT, monitoring its efficacy in different experimental conditions is required. In this work, scanning electron microscopy was used to analyze the tegument of adult worm of *Schistosoma mansoni,* SLM strain, when the same was maintained in sub-lethal concentrations of PZT. At the same time, 2-D electrophoresis was used to obtain the electrophoretic profile of proteins of theses parasites with and without treatment. The results demonstrated that after 10 minutes of exposition to 80µg of PZT per 1 ml of RPMI 1640 medium, the adult worms of *S. mansoni* had presented muscular contraction throughout its body, losing its normal morphologic structure. The surface of the tegument showed loss of the spines when compared with the control group. The 2D electrophoretic profile of the adult worms after incubation in RPMI 1640 medium in the presence of PZT demonstrated a diminished amount of proteins in comparison with untreated worms. Such results are been investigated together with the analysis of the supernatant from the incubation media aiming to identify the proteins upon which the PZT exerts its effects.

Key Words: Schistosoma, adult worm, 2-D electrophoresis, ultrastructure.