Protective effect of *Himatanthus drasticus* Latex Proteins in a Sepsis Model induced by *Salmonella Typhimurium*

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**Introduction.** *Himatanthus drasticus* latex is popularly used for diverse medicinal purposes, including inflammation diseases treatment. Therefore, this study aims to investigate the effect of *Himatanthus drasticus* latex proteins (HdLP) in an infection model with *Salmonella enterica* serovar Typhimurium. **Material and Methods.** For this, three experiments were developed. Swiss mice were intraperitoneally treated with HdLP (2.5; 5.0 and 10.0 mg/Kg), 24 h before (1st experiment) and 24 h after (2nd experiment) lethal challenge with bacterial infection (10^7 CFU/ml, ip.). The survival was analyzed during 15 days. In the third experiment, mice were intraperitoneally treated with HdLP (10.0 mg/Kg) 24 h before the bacterial challenge. The animals were sacrificed in the first and third day after infection followed by total and differential leukocytes counting on blood and peritoneal fluid. Bacterial enumeration was performed in liver, spleen, blood and peritoneal fluid. Control groups for all experiments received only the bacterial infection. **Results and Discussion.** At the 1st experiment, animals treated with HdLP survived to the detriment of the control animals, exhibiting preventive effect up to 100% of survival (10.0 mg/Kg). However, a 90% death was verified on the fourth day in all tested doses at the 2nd experiment. At the third, total and differential counting presented an increase in the number of total leukocytes (blood) and neutrophils (peritoneal fluid) in the treated animals when compared to control animals. It was also verified a reduction in the amount of bacteria in fluids and tissues of treated animals, reaching a total elimination of bacteria in the blood on the third day after infection. **Conclusions.** HdLP demonstrated a protective effect against induced sepsis by *S. Typhimurium* in mice and the effect can be at least in part due to its ability to induce neutrophil migration to the focus of infection, event not observed in non-protected animals.

Keywords – *Himatanthus drasticus*, latex, sepsis, *Salmonella Typhimurium*

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