EFFECTS OF THE TICK *RHIPICEPHALUS (BOOPHILUS) MICROPLUS* INFESTATION ON THE HOST HEMOSTATIC SYSTEM

Reck Junior, J.[1,2], Berger, M.[1], Terra, R. M. S.[1], Marks, F. S.[2], Guimarães, J. A.[1], da Silva Vaz Junior, I.[1,2], Termignoni, C.[1,3]

[1]Centro de Biotecnologia, Universidade Federal do Rio Grande do Sul (UFRGS), Porto Alegre - RS – Brazil; [2]Faculdade de Veterinária, UFRGS; [3]Departamento de Bioquímica, Instituto de Ciências Básicas da Saúde, UFRGS.

The tick *Rhipicephalus (Boophilus) microplus* causes great economic losses to cattle breeding. *R. (B.) microplus* is a haematophagous ectoparasite and its saliva contains many molecules that interfere in hemostasis. Host disorders caused by *R. (B.) microplus* infestation have been reported, although, systemic alterations of hemostatic system profile were never observed. The objective of the present study was determinate if *R. (B.) microplus* experimental-infestation (20,000 larvae) affects the hemostatic system of the natural host. The collagen and ADP induced platelet aggregation and coagulation (activated Partial Thromboplastin Time) abilities were significantly decreased in infested cattle. These alterations could be due to the action of parasitic salivary molecules. The platelet blood count and fibrinogen level increase significantly along the course of the infestation, probably as a compensatory response. These results demonstrate systemic alterations on the hemostatic system of the tick host, which can influence the parasitism itself and the host health status.