

TpE - PRELIMINARY STUDY OF *BABESIA BOVIS* AND *BABESIA BIGEMINA* INFECTION IN CATTLE FROM BRAZILIAN AMAZONIA.

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In Brazil, bovine babesiosis due to *Babesia bovis* and *Babesia bigemina* occurs endemically in almost the entire country. While the condition of endemic stability is the most common for both *Babesia* species, areas of enzootic instability have been identified. Because no data are available about these diseases in Amazonia, in the present experiment we used PCR-based techniques (PCR and nPCR) in order to estimate the rate of *B. bovis* and *B. bigemina* infection in blood from animals reared in Brazilian Amazonia. The study was conducted on crossbreeds dairy cattle $\frac{1}{2}$ *Bos taurus* + $\frac{1}{2}$ *Bos indicus* with age of 4-12 months, created in eight micro regions of Rondônia state (1,388 animals) and four micro regions of the Acre state (225 animals). The blood samples collections were performed from November 2205 to January 2006 and DNA was extracted using the GFX™ Genomic Blood DNA Purification Kit (GE Healthcare). Cattle infection was investigated by DNA amplification (PCR and nested PCR), using specific primers for *B. bovis* and *B. bigemina*. The frequency of infection was 9,0% (125/1,388) for *B. bovis* and 3,19% (43/1,345) for *B. bigemina* in the samples from Rondônia state. In the samples from the Acre state the frequency of infection was 7,1% (16/225) for *B. bovis* and of 0,9% (2/225) for *B. bigemina*. This is the first study in which molecular diagnostic techniques were used to investigate the epidemiology of bovine babesiosis in Brazilian Amazonia. The low frequency of *B. bovis* and *B. bigemina* infections in animals with age of 4-12 months indicates a situation of endemic instability for these hemoparasites in the studied area, but this situation did not reflect the reality of sanitary conditions for babesiosis in cattle of this states. The evidences in herds of Rondonia and Acre suggested the enzootic stability and the low prevalence of *Babesia spp.* indicate a potential risk of babesiosis outbreak in cases where the cattle in low immunity and occurs the increases the inoculation rate of *Babesia spp.* in the herds. Future serologic investigations are necessary to confirm these results.

Key words: Brazilian Amazonia, *B. bigemina*, *B. bovis*, PCR, epidemiology.