

Ristow L.E., Perez Junior A.A. & Tavares C.A.P. **Prevalency study of seropositive dogs for *Ehrlichia* sp in serological tests made in TECSA laboratórios.** *Pesquisa Veterinária Brasileira* 29 (Supl.) 2009. TECSA Laboratórios, Av. do Contorno 6226, Belo Horizonte, MG 30110-042, Brasil. E-mail: tecsa@tecsa.com.br

Introduction: The ehrlichiosis is an important hemoparasitosis that prevalence have been increased a lot of in some Brazilian states. This disease affects many mammals including dogs, cats and humans, becoming a zoonosis and being identified as a major cause of morbidity and mortality. (Santarém *et al.* 2005). The etiologic agent belongs to *Ehrlichia* genus, which are currently classified as the order of Rickettsiales. The species *Ehrlichia canis* e *Ehrlichia platys* (*Anaplasma platys*) respectively affect dogs and cats and is mainly transmitted by ticks *Rhipicephalus sanguineus*, may also present as several other hematophagous arthropod vectors. Are obligatory intracellular parasites of leukocytes, also infecting platelets (Urquhart *et al.* 1996; Santarém *et al.* 2005). The affected animals have nonspecific clinical signs and vary according to the parasitic phase (acute, subclinical and chronic), involving depression, dyspnea, lymphadenopathy, weight loss, bleeding, hypotensive shock, epistaxis, peripheral edema and occasional polyarthritis. In laboratorial tests, leucopenia, thrombocytopenia are common findings. Hypergammaglobulinemia is also evidenced, although complementary, isn't specific to close a diagnosis (Rikihisa *et al.* 1992). The diagnosis is based on serological exams like IFA (Indirect Immunofluorescence Assay), Western Immunoblotting, Dot-Blot Enzyme Linked-Immunoassay (dot-blot-ELISA) and molecular techniques like Polymerase Chain Reaction (PCR), each one presenting its advantage over the specificity and sensitivity, besides practicality, accuracy and cost (Andereg & Passos 1999).

Objectives: The purpose of this study is characterize the prevalence of parasited animals by *Ehrlichia* sp in the metropolitan area of Belo Horizonte, Minas Gerais, from serum samples processed from January 1st, 2005 to November 30th, 2008.

Materials and Methods: For data survey were used specific softwares and databases developed solely for the laboratory, obtaining full traceability of diagnoses made by the company. For the diagnosis of *Ehrlichia*, was processed a total of 1640 samples (n = 1640) from January 1st, 2005 to September 30th, 2008, and the methods used for serological diagnosis Dot-Blot-ELISA reaction and indirect immunofluorescence (IFA), which was detected in both type IgG specific antibodies (Andereg & Passos 1999).

Results and Conclusions: Of total tested samples, 901 (54,93%) were seropositive in at least one of serological tests performed to detect ehrlichiosis. The available serological tests have varying sensitivity and specificity. In IFA technique, the factors that contribute this variation is linked to contamination of samples, technical executor experience, antigen quality and stage of parasitemia (Andereg & Passos 1999). The Western Immunoblotting, despite of elevated cost, its a technique that shows similar sensibility to IFA, with advantage of no operator subjectivity influence, resulting in great objectivity reading, in addition to being able to identify early anti-*Ehrlichia* antibodies. Finally, the Dot-Blot-ELISA and commercial kits based on its principle, besides show sensitivity and specificity similar to the IFA, have the advantage of providing fast and easy execution and reading, being directly made observing the result color reaction (Andereg & Passos, 1999). Of total tests performed during mentioned period, there is 54.93% of prevalence parasited animals. This prevalence is not only determined by the diagnostic technique employed, should be considered carriers healthy animals that contribute to the transmission of the agent to susceptible animals. Moreover, should also be considered the therapeutic protocol used by clinicians in the treatment of sick animals that are often limited to remission of clinical symptoms, thereby determining a chronic infection. It also noted that serological tests are still the most practical and most cost-benefit to the clinician, and the molecular tests (PCR) are indicated in control treatment cases, because the infected animal will be positive for an indefinite period after the treatment.

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INDEX TERMS: Prevalence, *Ehrlichia*, ehrlichiosis serology.