Márcia M G Jusi et al., J Vet Sci Technol 2017, 8:4(Suppl)
DOI: 10.4172/2157-7579-C1-025

Development of an immunochromatography kit for canine monocytic ehrlichiosis, using *Ehrlichia canis* recombinant protein

Márcia M G Jusi and **Célio R Machado**
Imunodot, Brazil

Statement of the Problem: Canine monocytic ehrlichiosis (CME), is an infectious-contagious disease caused by the intracellular bacteria, Ehrlichia canis. The diagnosis of CME in the acute phase allows the early treatment and improves the prognosis. However, the clinical diagnosis is impaired by the non-specific clinical signs. Therefore, serological tests provide a more sensitive diagnosis. The search for specific antibodies anti-*E. canis* by the Fluorescent Antibody Test (IFAT) is considered the gold standard for CME diagnosis. The objective of this work is to develop and validate a rapid immunochromatographic diagnostic kit for detection IgG antibodies to *E. canis* recombinant proteins of naturally infected dogs serum samples. A kit originally brazilian, which would contribute to early of diagnosis, as well as the benefit and costs. Since it is quick and easy to perform, the veterinarians themselves in their clinics would perform it.

Methodology & Theorical Orientation: We produced the recombinant *E. canis* protein in large scale, as well, the colloidal gold, this later, using the tannic acid and sodium citrate method. We also produced the conjugate (Protein A conjugated to colloidal gold) for nitrocellulose membrane tests.

Findings: We detect reactivity for positive serum canine and not for the negative serum canine by immunochromatographic test in preliminar tests.

Conclusion & Significance: The test on the nitrocellulose membrane demonstrated that as the recombinant protein as and protein A reacted very well with the dogs's serum samples once establishing the optimal concentrations of antigen, conjugate and dilution of the sera.

Biography

Márcia M G Jusi has a degree in Biological Sciences from the Faculty of Agrarian and Veterinary Sciences (FCAV), UNESP-Jaboticabal, SP, Brazil. She was a CNPq Fellow of Scientific Initiation in 2005, in the area of Biological Control. She was also a FAPESP Fellow of Scientific Initiation, in 2007, on diagnosis of leishmaniasis in wild canids and procionids. She completed a Master's degree in 02/2011 at FCAV, in the area of Molecular Biology with cloning and expression of Leishmania chagasi A2 protein. In March 2011, she started her PhD course at the same university and finished it in February 2015 with scholarship and research funding by FAPESP, she carried out a study on cellular and humoral immune response of mice immunized with the A2 recombinant Leishmania chagasi protein. She is currently a Post-doc Business Scholar (PIPE-FAPESP), developing an immunochromatographic test for canine ehrlichiosis using a recombinant protein in the company Imunodot.

marciajusi@yahoo.com.br

Notes: