FLUORESCENCE POLARIZATION ASSAY FOR DETECTION OF ANTIBODIES AGAINST *Brucella abortus* IN TABAPUÃ HEIFERS VACCINATED WITH B19 STRAIN

(TESTE DE POLARIZAÇÃO FLUORESCENTE NA DETECÇÃO DE ANTICORPOS CONTRA Brucella abortus EM BEZERRAS DA RAÇA TABAPUÃ VACINADAS COM A AMOSTRA B19)

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Brucellosis is an infectious anthropozoonosis with chronic evolution and worldwide distribution that causes severe economic losses. In an attempt to control and eradicate the disease in this country, a National Program that aims to vaccinate calves with the B19 strain of *Brucella abortus* and diagnostics for identification of infected animals was created. There is a large number of tests for serological diagnosis, including fluorescence polarization assay (FPA), recently validated in Brazil. This test has proven to be a great tool to differentiate vaccinated animals with antibody persistence of those naturally infected. The aim of this study was to monitor the serological response of Tabapuã calves to vaccination with *Brucella abortus* strain B19 by TPF compared with other tests recommended by the National Program. We selected 72 Tabapuã heifers at vaccination age. The animals were vaccinated subcutaneously with the recommended standard dose. Blood samples were obtained from calves immediately before vaccination and 30, 60, 90, 120, 150, 180, 210, 240, 270, 300 and 330 days after. The buffered acidified antigen test (AAT), the combination of 2-mercaptoethanol (2 Me) tube agglutination test, complement fixation test (CFT) and fluorescence polarization assay (FPA) were used for the diagnosis. The 72 animals tested were negative for all serological tests performed on serum samples obtained just prior to vaccination. After 30 days of vaccination, FPA had a specificity ranging from 15.71% to 44.29%, according to the interpretation criteria; however, at the same time, the correlation between the results of the FPA and the other tests ranged from poor to regular. At 180 days of vaccination, it was observed specificity of 58.06% for AAT, 64.52% for 2-Me, 64.52% for CFT while it ranged from 35.48% to 74.19% depending on the FPA criterion used for interpretation. After 240 days of vaccination, FPA was the first to provide a negative result for all samples. Thus, FPA in comparison to the other tests, discriminated more efficiently the vaccine-antibody titers soon after vaccination.

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