KINETICS OF ANTIBODIES IN IMMUNIZED GOATS WITH LYOPHILIZED VACCINE AGAINST *Corynebacterium Pseudotuberculosis*.

Lilian Porto de Oliveira[1], Robson Bahia Cerqueira [2], Ângela Cristina de Oliveira Lima[2], Ana Karina da Silva Cavalcante[2], Vinicius Pereira Vieira[2], Thaise Marques Alves[2], Silvânia Conceição Silva[2], Kayck Amaral Barreto[2], Juliana Lira Gama Pires Alves[2], Maria Consuêlo Caribé Ayres [1]

[1] Universidade Federal da Bahia

[2] Universidade Federal do Recôncavo da Bahia

Corynebacterium Pseudotuberculosis (CP) is the etiological agent of the Caseous Lymphadenitis (CL) a chronic disease characterized by the formation of abscesses in goats and sheeps. The CL is responsible for significant economic losses for farmers in many coutries. Treating CL is virtually unfeasible since the bacterium is facultative intracellularly surviving and multiplying within macrophages. After cell death there is the formation of a necrotic lesion with thick fibrous capsular formation, which makes the penetration of most antibiotics difficult, and vaccination is still the best way to control the disease. Therefore, the objective of this study was to evaluate the kinetics of 12-month antibodies from 100 goats clinically and serologically negative for LC, immunized with attenuated lyophilized vaccine from strain 1002. The animals were divided into five groups (n = 20 / group) who received the following doses of vaccine antigen: G - control saline solution, G1 - 10^7UFC/mL, G2 – 10^7 UFC/mL revaccinated with 21 days; G3 – 10^6UFC/mL; G4 - 10^6UFC/mL revaccinated with 21 days. The serology was performed by ELISA with antigen extracted from the supernatant of the (CP) culture by the dialyzed mary bath (BMD) technique. There was IgG production during the 12 months with G1 production peak of 0.508 OD at 140 days and mean (M) and standard deviation (SD) of 0.399 ± 0.085; G2 peak of 0.610 OD at 140 days with M and SD of 0.384 ± 0.101; G3 peak from 0.516 OD to 112 days with M and DP of 0.375 ± 0.105; G4 peak from 0.528 OD to 84 days with M and SD of 0.361 ± 0.108. However, when analysis of variance was applied by the general linear model with repeated measurements, no significant differences were observed between the groups (p = 0.06). This leads us to infer that the dose with less antigen and without the need for revaccination can be used to control the disease, facilitating the management of the producer with a more stable product and without the necessity of expenses with revaccinations and reduced the cost for the industry with the use of less antigen for its manufacture. The attenuated vaccine showed that it retains its ability to multiply in the animal body in a controlled manner, without causing the disease by stimulating the production of specific antibodies for an extended period of time with only a single dose.