COMPARISON OF ANTI-RABIES TITLES IN BOVINES SUBMITTED TO FIVE DISTINCT VACCINATION SCHEDULES

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ABSTRACT: Control of rabies in cattle, in Brazil, relies mainly on bovine vaccination. The National Brazilian Program for Rabies Control indicates the use of two doses of an inactivated vaccine. This study was conducted to determine the best schedule for cattle vaccination. To evaluate this, an inactivated rabies vaccine (BGS-Cell) was administered to bovines, by subcutaneous route. Animals were organized in 5 groups (nine bovines in each group), identified as A, B, C, D and E. Group A received only the dose at day zero; groups B and C received one booster at days 30 and 180, respectively; groups D and E received two boosters, delivered at days 30 and 60 and days 30 and 180, respectively. Blood samples were withdrawn at days zero (negative control), 30, 60, 180, 210 and 360 after the beginning of vaccination. Specific antibody levels were determined in sera samples by the Rapid Fluorescent Focus Inhibition Test (RFFIT). Samples showing values $\geq$ 0.5 IU/ml were considered positive. The group E, whose protocol included two boosters, was the most efficient because induced high and persistent specific antibody levels. The results reinforce the need for a booster application in rabies vaccination to keep the prophylactic efficacy of inactivated vaccines. In view of these results we suggest the use of 3 doses of inactivated vaccine: one priming dose followed by two boosters delivered at days 30 and 180 after the initial dose.

KEY WORDS: bovine, rabies, booster, immune response, vaccination

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