



Humoral immune responses of pregnant Guinea pigs Immunized with live attenuated *Rhodococcus equi*

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Abstract

The potential to increase passive transfer of specific *Rhodococcus equi* (*R.equi*) humoral immunity to newborn by preparturient vaccination of

their dams was investigated in Pregnant Guinea pigs as a pilot study. Attenuated autogenous vaccine was prepared from a Congo red negative (CR-) *R.equi* local isolate mixed with adjuvant (potassium alum sulphate), tested for sterility, safety and potency prior to vaccination. Two groups of pregnant G. pigs were used, the first group was vaccinated twice subcutaneously (S.C) with the prepared vaccine at five and three weeks prior parturition, the second group was inoculated with adjuvant plus phosphate buffer saline (PBS) twice s.c and kept as control. Offspring from the vaccinated dams had revealed high titers of specific *R. equi* antibody as detected by tube agglutination (TA) and passive haemagglutination (PH) test and showed protection against challenge dose. The results revealed that vaccination of pregnant G. pigs with the prepared attenuated vaccine was safe and efficient method to protect their offspring against experimental challenge with virulent *R.equi*. Vaccination was associated with increased humoral immune response in vaccinated group.

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