

SAFETY AND EFFICACY OF COMBINED ADMINISTRATION PORCILIS® PRRS & PORCILIS® ERY+PARVO

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Introduction and Objective

Current objectives in modern pig farming necessitates maximising of benefits while seeking to minimise costs. In this environment the use of a combined vaccination against common infectious diseases would have obvious advantages, both in terms of time and resources.

With this in mind an orientating study was initiated looking at the potential for combined administration of an attenuated live PRRS vaccine (Porcilis® PRRS Intervet International BV) with an Parvo+Ery killed vaccine (Porcilis® Ery + Parvo Intervet International BV).

The objective of this study was to investigate efficacy of simultaneous use of Porcilis PRRS and Porcilis Parvo+Ery by measure of serological response. The subsequent reproductive performance of the gilts was monitored.

Materials and Methods

40 PRRS free SPF gilts of 65 kg bodyweight were housed in a quarantine house and divided into two Groups.

Group 1, 19 gilts, were vaccinated with PRRS and Ery + Parvo (Porcilis® PRRS and Porcilis® Ery + Parvo, Intervet International BV) simultaneously with one syringe, in which both vaccines had been mixed immediately prior to use.

Group 2, 21 gilts, were vaccinated with PRRS and Ery + Parvo (Porcilis® PRRS and Porcilis® Ery + Parvo Intervet International BV) at two different sites, using two separate syringes.

Animals were monitored for local and systemic side effects for 1-2 hours post injection and at 24 hours. Blood samples were taken at two timepoints: at Day 0 (T0), and Day 28 (T1) and assayed to assess seroconversion for PRRS by immunofluorescence testing (IFT) and for Parvovirus by Haemihibition test (HI). Both groups were followed until farrowing and reproductive parameters (abortions, live born piglets etc.) were compared.

Statistical evaluation

The individual gilt was the statistical unit. Descriptive statistics (frequency tables, means, standard deviations etc.) were used to summarise the data. IFT-titres were analysed by analysis of covariance with T0 titres as covariate (ANCOVA). Results of ELISA test were analysed with two-sample T-test.

Significance was set at 0.05. All statistical analyses were performed with the statistical package SAS (SAS Institute Inc., Cary, NC, USA).

Results and Discussion

No local or systemic reactions were seen in either group post vaccination.

The initial HI titre (T0) to porcine parvovirus was high in both groups, probably due to a previous field infection, i.e. in group 1 10.16 ± 1.83 and in group 2 9.57 ± 2.7 . At T1 an increase in the average Parvovirus HI was registered in both Groups: 13.24 ± 0.90 for group 1 and 13.21 ± 1.08 for group 2 (n.s.), see figure 1.

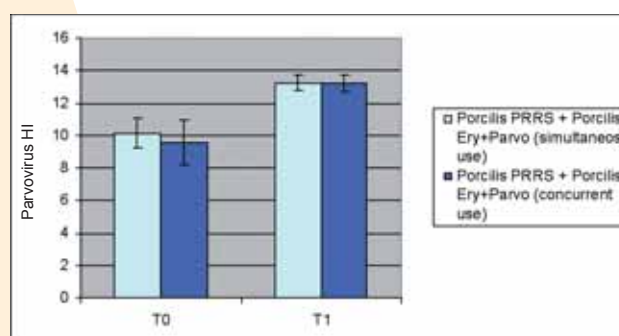


Figure 1. Parvovirus HI: average values

The IFT titres for PRRS in Group1 and Group 2 were 7.68 ± 1.00 respectively 7.38 ± 1.12 (n.s.), see figure 2. At T0 the titres were below detection level.

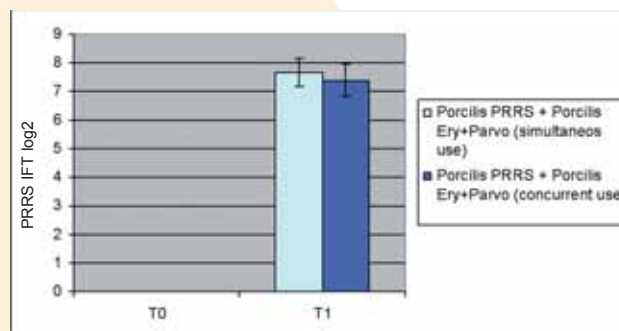


Figure 2. PRRS IFT: average values

There was no difference in reproductive performance between Groups 1 and 2 (data not shown).

In conclusion, the results of this orientating study demonstrates that simultaneous application of Porcilis® PRRS with Porcilis® Ery + Parvo has no effect on PRRS seroconversion or subsequent reproductive performance.