SAFETY OF THE COMBINATION OF UNISTRAIN® PRRS AND GRIPORK® IN A MASS VACCINATION PROGRAMME IN SOWS

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INTRODUCTION

Several vaccination programmes are implemented in sows. Therefore, combination vaccines to reduce the number of shots without compromising safety and efficacy are required to improve animal welfare and reduce farmers' daily workload.

According to Martínez *et al*. (2015)[1], when UNISTRAIN® PRRS (MLV PRRS vaccine, HIPRA) is reconstituted with GRIPORK® (inactivated Swine Influenza vaccine, HIPRA), PRRS virus stays alive and above the minimum effective dose for 4 hours after reconstitution.

As further information on this combination was required, this study to assess the safety of this combination was carried out.

MATERIALS AND METHODS

1153 sows from a commercial farrow to weaning farm in Spain were selected. The farm adopted a prophylaxis programme against PRRS and Swine Influenza disease which included the use of UNISTRAIN® PRRS and GRIPORK® in a mass vaccination programme. Sows at different gestational ages were randomly allocated to two groups: group 1 (n=554) was vaccinated intramuscularly with a combination of UNISTRAIN® PRRS and GRIPORK® (2 ml/sow) and group 2 (n=599) was vaccinated with the same products, but administered separately in different sides of the neck (2 ml/neck side of the sow).

Safety evaluation was based on the monitoring of systemic and local reactions, rectal temperature and reproductive performance of the sows (abortions, total, live, stillborn and mummified piglets from the first farrowing after vaccination).

The systemic and local reactions were monitored on 30 randomly selected sows per group at 0, 6, 24 and 48 hours post vaccination. Group comparisons were performed by Mann-Whitney U test whereas the interaction between variables was tested by ANOVA.

RESULTS

Evaluation of the reproductive performance of sows (Table 1) showed no statically significant differences between groups.

Table 1 Average number of piglets per group. [a,b] Different superscripts indicate statistically significant differences between groups ($p<0.05$).

	Total	Alive	Stillborn	Mummies
Group 1	15.45 ± 3.88	14.48 ± 3.69	0.97 ± 1.3	0.28 ± 0.66
Group 2	15.73 ± 3.80	14.78 ± 3.56	0.95 ± 1.16	0.28 ± 0.66

No systemic reactions were observed in any group and average rectal temperature (Figure 1) showed no statistically significant differences between groups.

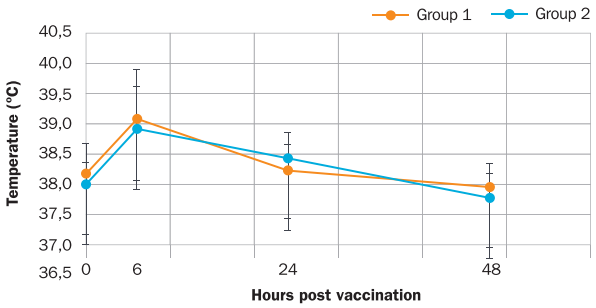

Figure 1 Rectal temperatures (ºC) after vaccination. (Mann-Whitney U test; *$p<0.05$).

Related to local reactions no statistically significant differences were observed between group 1 and GRIPORK® (group 2). The difference between group 1 and UNISTRAIN® PRRS (group 2) was statistically significant.

CONCLUSIONS

The safety of the combined administration of UNISTRAIN® PRRS and GRIPORK® is confirmed with regard to all the evaluated parameters (local and systemic reactions, rectal temperature and sow reproductive performance). Solutions are needed to reduce the number of injections performed on sows, so the combination of UNISTRAIN® PRRS and GRIPORK® is an alternative.

REFERENCES

[1] Martínez *et al*. (2015). *In vitro viability of vaccine attenuated PRRSv (UNISTRAIN® PRRS) when mixed with an inactivated Swine Influenza vaccine (GRIPORK®) Proc*. APVS. 2015.

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