

SAFETY OF VEPURED® VACCINE IN TWO DAY OLD PIGLETS

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INTRODUCTION

VEPURED® is a new single-dose vaccine developed to protect piglets against Edema Disease (ED). The aim of this study was to evaluate the safety of VEPURED® vaccine under laboratory and field conditions.

MATERIAL & METHODS

LABORATORY STUDY

Twenty-six healthy 2-day old piglets were randomly assigned to 2 groups. The piglets were either vaccinated intramuscularly with 1 mL of VEPURED® (n=13) or received 1 mL of PBS (n=13). Adverse events, local reactions, rectal temperature and productive data were monitored.

FIELD TRIAL

A multicentre, randomised, placebo-controlled field trial was carried out in 1,769 2 – 3-day old piglets from five commercial farms. The piglets were either vaccinated intramuscularly with 1 mL of VEPURED® (n= 945) or received 1 mL of PBS (n=824). Adverse events were monitored in all the animals included in the study. Local reactions, rectal temperature and productive data were monitored in 150 animals/group.

RESULTS

LABORATORY STUDY

No adverse events related to the vaccination were observed during the study. In the evaluation of local reactions at the inoculation site, only mild inflammation was observed in two vaccinated piglets, which had disappeared at 48 hours post-vaccination. Statistical differences were not detected ($p>0.05$) between the body temperature of the vaccinated and non-vaccinated groups (see Figure 1). Furthermore, no statistical differences ($p>0.05$) were observed between the weight development of the vaccinated (7.6 ± 1.0) and non-vaccinated piglets (7.9 ± 1.2).

FIELD TRIAL

No adverse events related to the vaccination were observed during the study.

In the evaluation of local reactions, only mild transient inflammation at the injection site was observed in the vaccinated group. Mean rectal temperature in the vaccinated group increased slightly four hours after vaccination being differences statistically significant ($p<0.001$) and returned to baseline values after 24 hours (see Figure 2). Furthermore, no statistical differences ($p>0.05$) were observed between the weight development of the vaccinated (7.4 ± 1.9) and non-vaccinated piglets (7.4 ± 1.8).

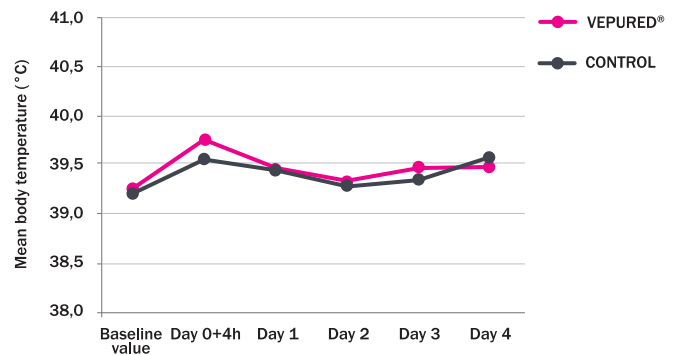


Figure 1. Laboratory study: Mean rectal temperature after vaccination.

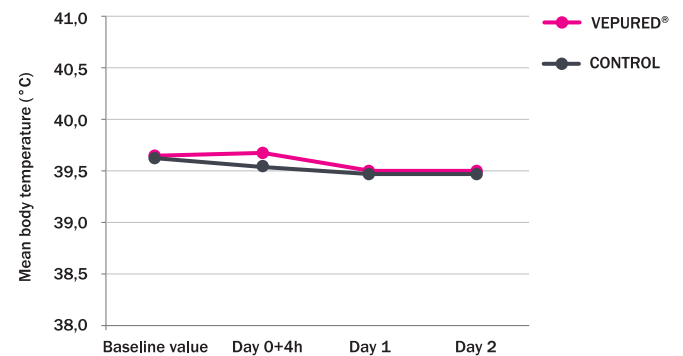


Figure 2. Field trial: Mean rectal temperature after vaccination.

DISCUSSION & CONCLUSION

The results obtained in this study demonstrated that VEPURED® vaccine is safe when administered to 2-day old piglets.