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TITLE

COMPARATIVE STUDY OF THE HUMORAL RESPONSE AND SAFETY EFFECTS OF TWO COMMERCIAL REPRODUCTIVE VACCINES UNDER FIELD CONDITIONS IN BREEDING SOWS

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CONTENT

BACKGROUND AND OBJECTIVES

The aim of this study was to assess and compare the humoral immune response and safety effects after vaccination against Swine Erysipelas (SE) and Porcine Parvovirus (PPV), using two commercial bivalent vaccines under field conditions.

MATERIAL & METHODS

Two different trials were performed in two commercial farms to assess humoral response and safety effects. Studied animals were randomly assigned in two groups. Group 1 (G1) received ERYSENG® PARVO (HIPRAMUNE® G adjuvant) while Group 2 (G2) received Vaccine B (aluminium hydroxide adjuvant).

Humoral response: forty seronegative gilts against SE and PPV were vaccinated and revaccinated following the manufacturer's instructions. Serological response was assessed at 0, 21, 42 and 63 days post vaccination (dpv) using a commercial ELISA kit and haemagglutination inhibition assay (HI) for quantification of SE and PPV antibodies respectively.

Safety effects: thirty-eight multiparous sows and ten gilts were vaccinated once ten days after farrowing. Safety effects were assessed by monitoring the rectal temperature and the average feed intake per sow.

RESULTS

Regarding the humoral response, SE and PPV antibodies in G1 showed significant differences ($p\text{-value}<0.05$) compared to G2 from day 21 until the end of the study. Moreover, antibody titres against SE and PPV were 21% and 26% higher in G1 compared to G2 at 42 dpv respectively. Concerning safety effects after vaccination, no differences between G1 and G2 were observed ($p\text{-value}>0.05$).

DISCUSSION & CONCLUSION

The results of this study demonstrate that seroconversion against SE and PPV after vaccination with ERYSENG® PARVO was higher and tend to last longer than Vaccine B, this could be related to a different recognition of the antigen by the immune system and/or different effects of the adjuvants. On the other hand, both vaccines have shown similar degree of safety when injected under similar conditions.