



IMMUNOLOGY & VACCINOLOGY

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SEROLOGICAL RESPONSE AGAINST *ERYSIPELOTHRIX RHUSIOPATHIAE* IN GILTS VACCINATED WITH DIFFERENT COMMERCIAL VACCINES

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Introduction

Erysipelothrix rhusiopathiae is the causative agent of Erysipelas. In pigs vaccination is the primary strategy to prevent the disease.

The objective of this study was to compare *E. rhusiopathiae* antibody induction in the serum of gilts after vaccination with four different commercial vaccines.

Material & Methods

Blood samples were obtained from non-vaccinated and vaccinated gilts from herds located in Denmark. Gilts were vaccinated with either vaccine A (Parvoruvax[®]), vaccine B (Farrowsure[®] Gold B), vaccine C (Porcilis[®] Ery/Parvo) or vaccine D (Eryseng[®] Parvo).

E. rhusiopathiae antibodies in serum samples were tested with the CIVTEST SUIS SE/MR indirect ELISA Kit (HIPRA, Spain) and the results obtained were based on sample-to-positive ratio.

Results

In 52 herds, serological levels for non-vaccinated gilts were 24.6; SD = 29.4; n = 317 gilts and for vaccinated gilts 53.6; SD = 36.4; n = 328 gilts. In vaccinated gilts, 46.0% were serologically negative (serological value < 40).

A total of 31 herds and 190 vaccinated gilts were included in a multilevel statistical analysis comparing the serological response against *E. rhusiopathiae*. Mean serological levels obtained for the different vaccines were vaccine A: mean = 35.4; SD = 20.0 (n=70); vaccine B: mean = 34.7; SD = 17.7 (n=48); vaccine C: mean = 30.5; SD = 18.9 (n=30); and vaccine D: mean = 46.8; SD = 23.0 (n=42). Serological levels from gilts vaccinated with vaccine D were statistically significantly higher compared to gilts vaccinated vaccine A ($P = 0.024$), vaccine B ($P = 0.025$) or vaccine C ($P = 0.008$). No statistical differences were found between serological levels in gilts vaccinated with vaccine A, B or C.

Discussion & Conclusion

In conclusion, gilts vaccinated with the commercial vaccine D exhibited the highest serological response compared with animals vaccinated with one of three other commercial vaccines against *E. rhusiopathiae*.