

Effect of 4 commercial PRRS vaccine on the CSFV vaccine antibody response



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INTRODUCTION

PPRRS and CSFV vaccine are both widely used in china. Most of time they will be vaccinated on piglets apart 2 weeks. Studies have shown that vaccinating CSFV vaccine 2 days after PRRS vaccination will reduce CSFV immunity response. From the routinely farm antibody monitor program, we found CSFV antibody positive rate always low (< 30%), so we designed to investigate if vaccinated piglets 2 weeks after PRRS vaccination still influence CSFV antibody response.

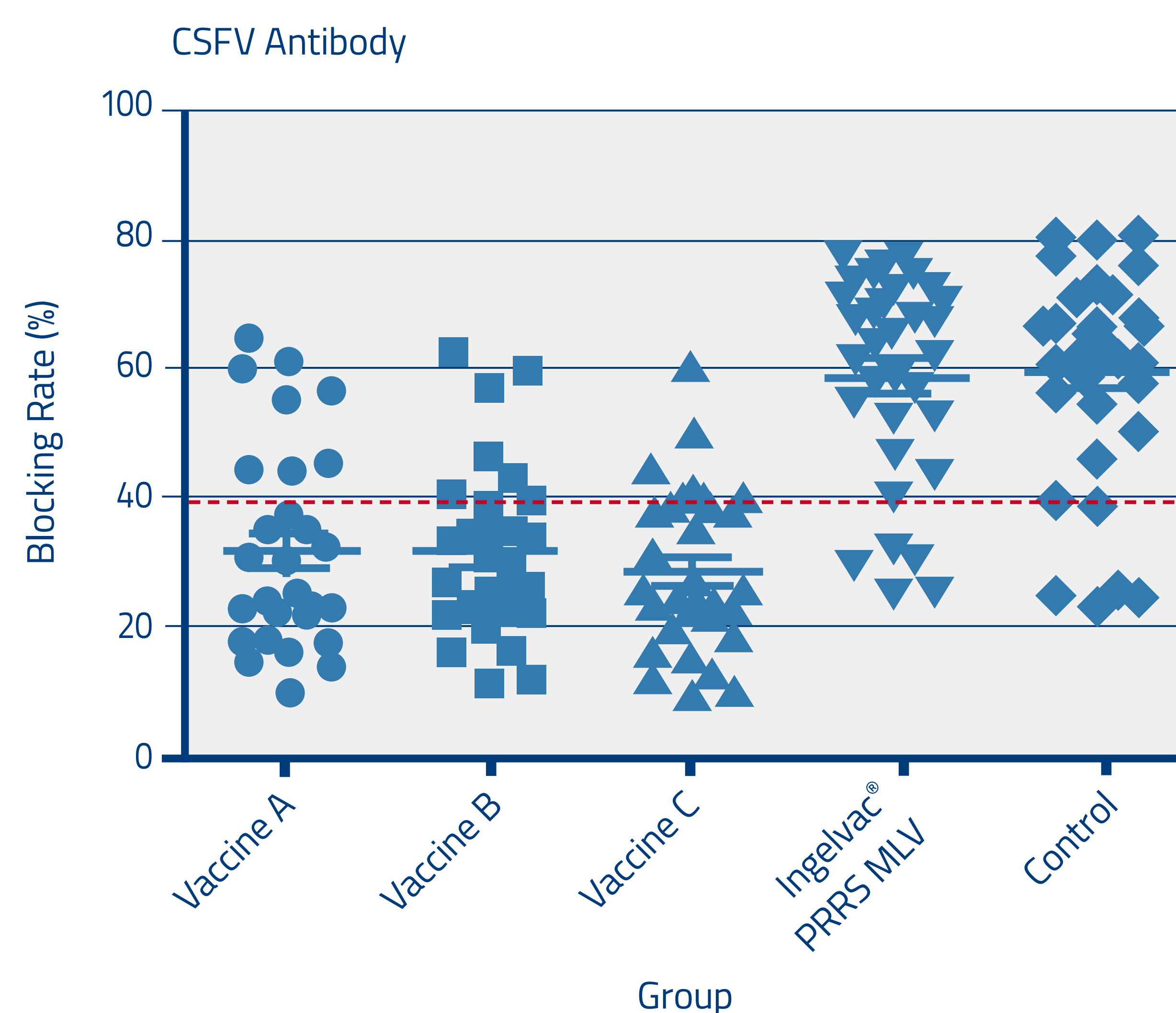
MATERIALS AND METHODS

164 piglets from 15 litters were randomly separated into 5 groups. Group A (n = 32) vaccinated local classic strain PRRS vaccine, Group B (n = 30) vaccinated another local classic strain PRRS vaccine, Group C (n = 33) vaccinated highly pathogenic strain PRRS vaccine, Group D (n = 35) vaccinated Ingelvac[®] PRRS MLV, Group E (n = 34) were control. Group A, B, C, D vaccinated PRRS vaccine at 15 days, and C-strain CSFV vaccine at 30 days; control group just vaccinated CSFV vaccine at 30 days. After wean, every group were separated into different pens and not mixed. All the management and other vaccination program for these 5 groups are all the same. Blood samples were collected from all piglets 35 days after CSFV vaccinated. Serum concentration of CSFV antibody was determined by IDEXX ELISA kit (IDEXX CSF Sero). The cut off value of the CSF ELISA is 0.4 in blocking rate.

RESULTS

Average CSFV antibody positive rate of group A is 25%, group B is 20%, group C is 21.1%, Group D is 82.9%, control group is 85.3% (Fig 1). P value between Group D and Group A is < 0.0001, Group D and Group B is < 0.0001, Group D and Group C is < 0.0001, Group D and control is 0.8264. From this study, we found some local commercial PRRS vaccine will significantly reduce CSF vaccine antibody response even 2 weeks apart vaccination, meanwhile, Ingelvac[®] PRRS MLV is safe to use and not influencing the CSF antibody response apart 2 weeks vaccination.

Table 1: Serum levels of CSFV specific antibody in different treatment groups



CONCLUSION

Some farms get confused to low CSFV antibody positive rate after vaccination even choose high quality commercial CSFV vaccine. From this study we found some PRRS vaccine will reduce CSFV vaccine antibody response, farmers should also pay attention to PRRS vaccine's role on CSFV antibody response.

REFERENCES

- Hua Li, Hanchun Yang. Infection of porcine reproductive and respiratory syndrome virus suppresses the antibody response to classical swine fever virus vaccination. *Veterinary microbiology* 95 (2003) 295 – 301

