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Safety of Porcilis® PCV in nursery pigs

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INTRODUCTION

Vaccines that contain potent adjuvants have been suggested to negatively impact production parameters of nursery pigs. Despite the need for potent adjuvants in order to induce a sufficient duration of immunity, specialized piglet producers may therefore be reluctant to use such vaccines. This study investigates the impact of vaccination with Porcilis® PCV on production and health parameters (measured as antibiotic treatments) during the nursery period.

MATERIAL AND METHODS

In a Danish specific-pathogen-free herd, 11,957 pigs aged 3-4 weeks in 34 consecutive weaning batches were randomly allocated to one of two equally-sized groups 3-4 days after weaning: 1) Vaccinated with Porcilis® PCV or 2) unvaccinated. Vaccinated and unvaccinated pigs were commingled within pens. Two serum pools, each consisting of serum from 5 pigs, were obtained from each group in each batch at three and six weeks post-weaning and analyzed for PCV2 by quantitative polymerase chain reaction[1]. Mortality and antibiotic treatments by injection were recorded in 34 and 28 batches, respectively. Furthermore, all pigs in three batches (490 vaccinated and 497 unvaccinated) were weighed at study inclusion and at the end of the nursery period. Differences between groups was assessed by Fisher´s exact test (number of PCV2 positive serum pools and mortality) and Wilcoxon test (antibiotic treatments and average daily gain).

RESULTS

Results are displayed in Table 1. The prevalence of PCV2 viremia was generally low and no differences between vaccinated and unvaccinated pigs were found regarding mortality, number of antimicrobial treatments or average daily gain. Also the standard deviations of the average daily gain were similar for the two groups indicating identical weight gain distributions.

CONCLUSIONS

In this herd, where PCV2 viremia was almost completely absent, vaccination a few days post-weaning with Porcilis® PCV did not impact mortality, antimicrobial treatments or average daily gain. In conclusion, Porcilis® PCV vaccination was found to be safe regarding production and health parameters measured over the entire nursery period.

REFERENCES

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2. Nielsen GB (2017): Porcine circovirus type 2. Effects of vaccination on economically important parameters in growing-finishing pigs and evaluation of pooled serum and oral fluid samples for diagnosis. PhD Thesis, University of Copenhagen, Faculty of Health and Medical Sciences, 163 pp.

TABLE 1

Results from the field trial evaluating the impact of Porcilis® PCV vaccination a few days post-weaning[2].

Response variable	Number of batches included	PCV2-vaccinated	Unvaccinated	*p*-value
PCV2 positive pools, 3 weeks post-weaning	34	1 (1.5%)	3 (4.4%)	0.619
PCV2 positive pools, 6 weeks post-weaning	34	0 (0%)	7 (10.3%)	0.013
Mortality, no. of pigs	34	39 (0.65%)	50 (0.84%)	0.244
Antibiotic treatments, batch mean	28	87	91	0.452
Average daily gain, gram (sd)	3	498 (64.0)	501 (64.3)	0.663

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