ONE VACCINATION WITH UNISTRAIN® PRRS IN GILTS REDUCES VIREMIA AND VERTICAL/HORITZONTAL TRANSMISSION OF A HETEROLOGOUS PRRS VIRUS

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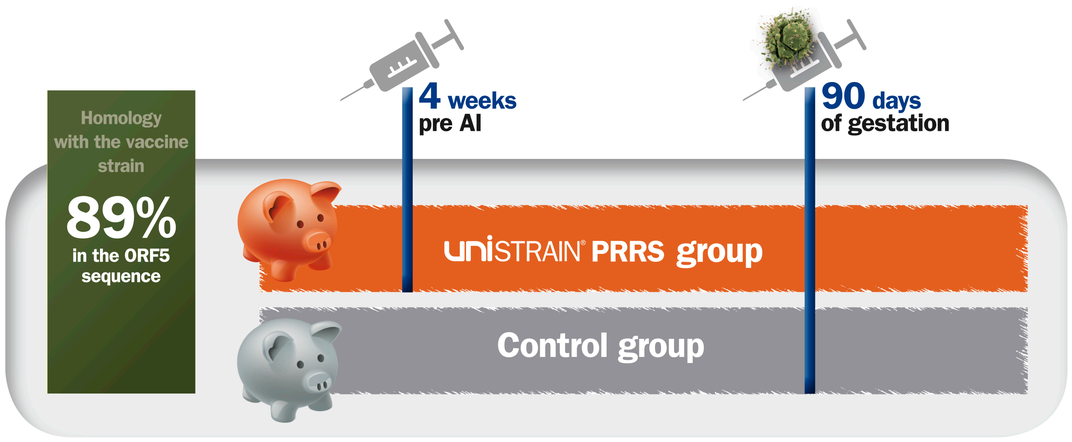
INTRODUCTION

The control of the viraemia is essential for the posterior PRRSV consequences, so demonstrate the reduction of viraemia conferred in vaccinated gilts with UNISTRAIN® PRRS was the principal goal of the study. The transplacental transmission of field virus to piglets was also evaluated.

MATERIALS AND METHODS

The vaccine was applied 4 weeks by IM route before mating to 8 naïve gilts. The efficacy was evaluated by means of an IN challenge at 90 days of gestation with an Italian pathogenic strain of European genotype of the PRRSV ($10^{6.8}$ $CCID_{50}$ / gilt). Virus detection was performed by PCR and virus isolation in alveolar macrophages.



RESULTS

The administration of UNISTRAIN® PRRS vaccine statistically reduced the number of viraemic gilts (Figure 1) and reduced also the length of viraemia induced by challenge (22.5 days vs. 0 days). This almost sterilizing immunity has been reported in MLV (Scortti et al., 2006; Lopez et al., 2007). Furthermore, vaccination inhibited in 59.5% of the cases the vertical transmission to piglets (Figure 2). There was a tendency shedding reduction of the infectious virus, decreasing the possibility of a horizontal transmission (50% control gilts shed virus by nasal secretions vs. 12.5% vaccinated gilts did).

CONCLUSIONS

Vaccination with UNISTRAIN® PRRS enabled gilts to clear the virus and reduced its vertical and horizontal transmission to foetuses. There was a reduction of infection pressure.

Figure 1. Viraemia of the gilts after challenge with PRRSV ($\chi 2$/Fisher; $p<0.05$).

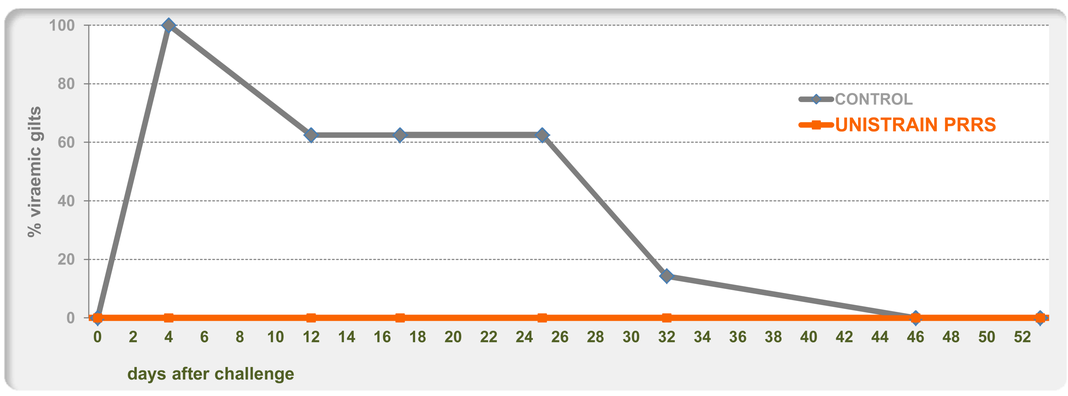
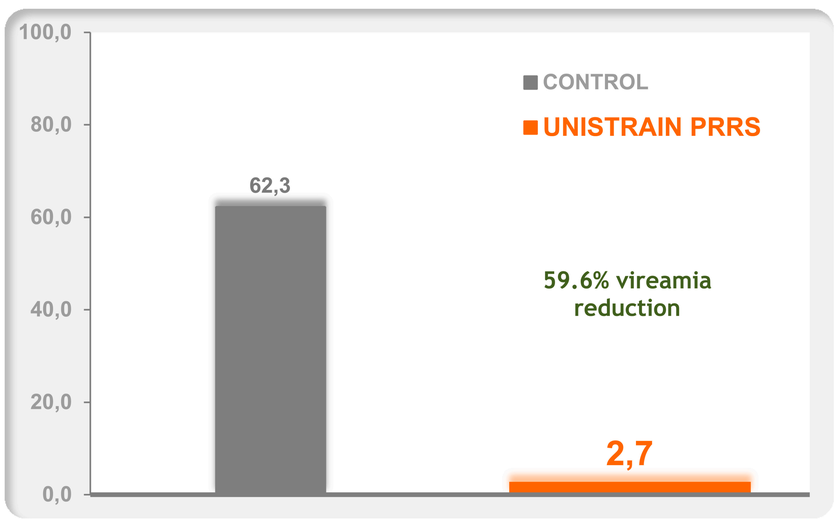


Figure 2. Percentage of viraemic piglets at birth ($\chi 2$/Fisher; $p<0.05$).



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