



VIRAL DISEASES

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FIELD EVALUATION OF ID AND IM PRRSV MLV VACCINATION (PORCILIS® PRRS) IN SUCKLING PIGLETS ON THEIR HEALTH STATUS AND PERFORMANCE

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Introduction

PRRSV causes significant economic losses to the global swine industry. The aim of this study was to evaluate the ID and IM PRRSV MLV vaccination in suckling piglets under field conditions.

Material & Methods

The study included 187 suckling piglets (2 weeks) from a commercial PRRSV-positive farm (11-12 piglets x 4 groups x 4 replicates); group A: IM- vac with Porcilis® PRRS, group B: ID- vac with Porcilis® PRRS, group C: ID of placebo and group D: IM of placebo. During the trial, blood samples were collected (3 pigs / group / replicate) at the age of 4, 7, 10, 13, 17 and 21 weeks. Sera was examined by qRT-PCR for PRRSV (types 1 and 2) and by ELISA for PRRSV Abs. Local and systemic reactions, performance parameters (BW, ADG), mortality, lung lesion scores (LLS) and pleurisy score (PS) were recorded.

Results

No significant local and systemic reactions were noticed in vaccinated piglets. Performance parameters were improved in vaccinated groups. Based on qRT-PCR Ct results (category 0 = negative, 1 = weak positive, 2 = positive, 3 = strong positive) the category 3 was more frequent in non-vaccinated groups at 7, 10 and 13 weeks. The comparison of ELISA and qRT-PCR results indicated that the ID or IM vaccination induces important seroconversion 2-5 weeks after vaccination. The mortality rate at finishing stage and overall during the study, as well as the respiratory problems (LLS, PS) were significantly lower in vaccinated groups.

Discussion & Conclusion

This study establishes that ID vaccination of suckling piglets is clinically safe and has beneficial effects on their protection against PRRSV viremia, equally or better than IM vaccination. In addition, evidences of ID vaccination benefits are the improved BW of finishers before slaughter, the reduction of respiratory problems, as well as the decreased mortality rate.