

**VACCINATION OF 1 DAY-OLD PIGS WITH A PORCINE REPRODUCTIVE AND RESPIRATORY
SYNDROME VIRUS (PRRSV) MODIFIED LIVE ATTENUATED VACCINE IS ABLE TO OVERCOME
MATERNAL IMMUNITY**

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Introduction

PRRSV is known to circulate after weaning in unstable pig farms. Having immunity in place when piglets are weaned can protect them from early infections. Due to the effect of maternally derived immunity in newborns, vaccination is usually delayed until immunity vanishes, at 3-4 weeks of age. Since onset of immunity against PRRSV takes at least 4 weeks to develop, animals can have a period of risk for PRRSV infection, in which maternal immunity is no longer acting, and vaccine immunity has not yet developed. Suvaxyn PRRS MLV is the first vaccine licensed in Europe which is able to overcome maternal immunity. The objective of the study was to demonstrate the efficacy of vaccination of 1 day-old PRRSV seropositive piglets against challenge with an European PRRSV strain.

Materials and methods

Thirty-five 1 day-old piglets, born from sows vaccinated with Suvaxyn PRRS MLV, were divided into two groups. One group (18 pigs) was kept as negative control; another group (17 pigs) was vaccinated at 1 day of age with Suvaxyn PRRS MLV. All pigs were challenged when levels of maternal antibodies (SN test) in the control group became undetectable. To demonstrate protection against challenge, viremia, rectal temperatures, shedding, clinical signs and body weight were evaluated. Ten days after challenge pigs were necropsied, and lungs evaluated for macroscopic lesions.

Results

A protective effect of vaccination was shown by significant reduction of viral load in serum compared to the control group (3.5 log reduction); efficacy was supported by significant reduction

of nasal and oral shedding (2.0 and 1.0 log reduction), and in rectal temperatures. Differences in mean percentage of lung lesions were close to significance (4.3% versus 1.3%).

Conclusions

Lack of interference of maternal immunity with Suvaxyn PRRS MLV efficacy, when the vaccine is administered to 1 day-old piglets, has been demonstrated.