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**1<sup>ST</sup> CASE REPORT: REPRODUCTIVE PERFORMANCE IMPROVEMENT AFTER PCV2 SOW VACCINATION IN SPAIN**

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**Introduction**

PCV2 can be associated with reproductive failure and cause infertility and increased rates of mummified, macerated, stillborn and weak-born piglets. The aim of this study was to determine the impact of PCV2 sow vaccination on several reproductive parameters in a Spanish sow herd.

**Materials and Methods**

The farm of this case report is a one-site, 1200-head sow farm located in Spain. The farm was positive for PRRS (stable), Mycoplasma and PCV2. The sow herd was vaccinating quarterly against PRRSv, and for PPV post farrowing. Since 2015 the abortion rate has been above (5,2%) and the overall reproductive performance below the target. Immunological tests and vaginal swabs were all negative for PRRSv, *Leptospira*, *Clamidia* and *E. rhusiopathiae*. *Streptococcus spp* and *Treuperella pyogenes* were detected in vaginal swabs. Whole herd antibiotic treatment was applied without improvement. Regarding PCV2, vaginal swabs and blood from sows that aborted were PCR positive. Sows were mass vaccinated twice with 1 ml of Ingelvac CircoFLEX® (Boehringer Ingelheim, Spain, SA) in December 2016 and January 2017, and mass revaccinated every 4 months. Reproductive parameters were analyzed by ANOVA or non-parametric tests with Minitab.17.1.0 software.

**Results**

Reproductive performances of the first 38 weeks of 2017 were improved compared to the same period of 2016. Born alive (+0,3 piglets) as well as fertility rate at first 40 days of gestation (+5,4%) were statistically better after the sow vaccination. Also weekly abortions were statistically reduced (-1,68 abortions per week) after the intervention.

**Conclusions**

PCV2 epidemiology has changed since widespread piglet vaccination. This case report confirmed the presence of PCV2 in vaginal swabs in aborted sows. Sow vaccination has led to a significant reduction of abortions and improvement of several reproductive indexes. There might be an interest in PCV2 sow vaccination to maintain high herd immunity levels and reduce PCV2 circulations.