

# Emergence of mummifications, abortions and stillborn piglets in a gilt herd shortly after total repopulation



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## INTRODUCTION

In November 2014 a sow farm in north Germany was repopulated with 440 gilts. In the Danish breeding facility, the pigs were vaccinated only against *Haemophilus parasuis*. Four groups of 110 gilts each were introduced into the German farm over a 4 month time period. As reported from the referring veterinarian, all animals were vaccinated against Porcine Parvovirus (PPV), Porcine Circovirus type 2 (PCV2), Influenza A virus, *Erysipelothrix rhusiopathiae* and *Mycoplasma hyopneumoniae* at the German facility. 3½ month after artificial insemination, gilts showed prolonged gestational periods. Increased abortion rates with big variations in the size of the piglets including mummies were observed as well as stillborn and weak piglets in different litters. In total only 65% of the sows farrowed at all. Based on these observations, PPV was suspected to be the underlying cause of disease.

## MATERIALS AND METHODS

Blood samples from affected sows were taken. Necropsy, histology, immunohistochemistry as well as polymerase chain reaction (PCR) was performed on piglet tissue. Samples were tested for porcine reproductive and respiratory syndrome virus (PRRSV), PCV2, Parvovirus, Enterovirus, *Leptospira sp.* and Chlamydia. Feed was tested for Mycotoxins and for a lack of Amino acids (Arg).

## RESULTS

Diagnostic tests revealed an infection with **PCV2**. Circovirus DNA was detected in blood samples of the affected **sows**. High virus levels were evident in piglet tissue samples (heart, liver, kidney, lymph node). Characteristic **histological lesions in the cardiac muscle** were found in both **stillborn** and new born **weak piglets**.

## CONCLUSION

The presented case reports an unusual manifestation of a PCV2 infection of gilts regarding the clinical presentation as well as regarding the previously implemented vaccination. The cause for this unexpected reproductive disease outbreak has been identified to be a delayed vaccination with Ingelvac CircoFLEX®, which took place several weeks after introduction of the first gilt groups. As a consequence, PCV2 was able to spread among the immunologically

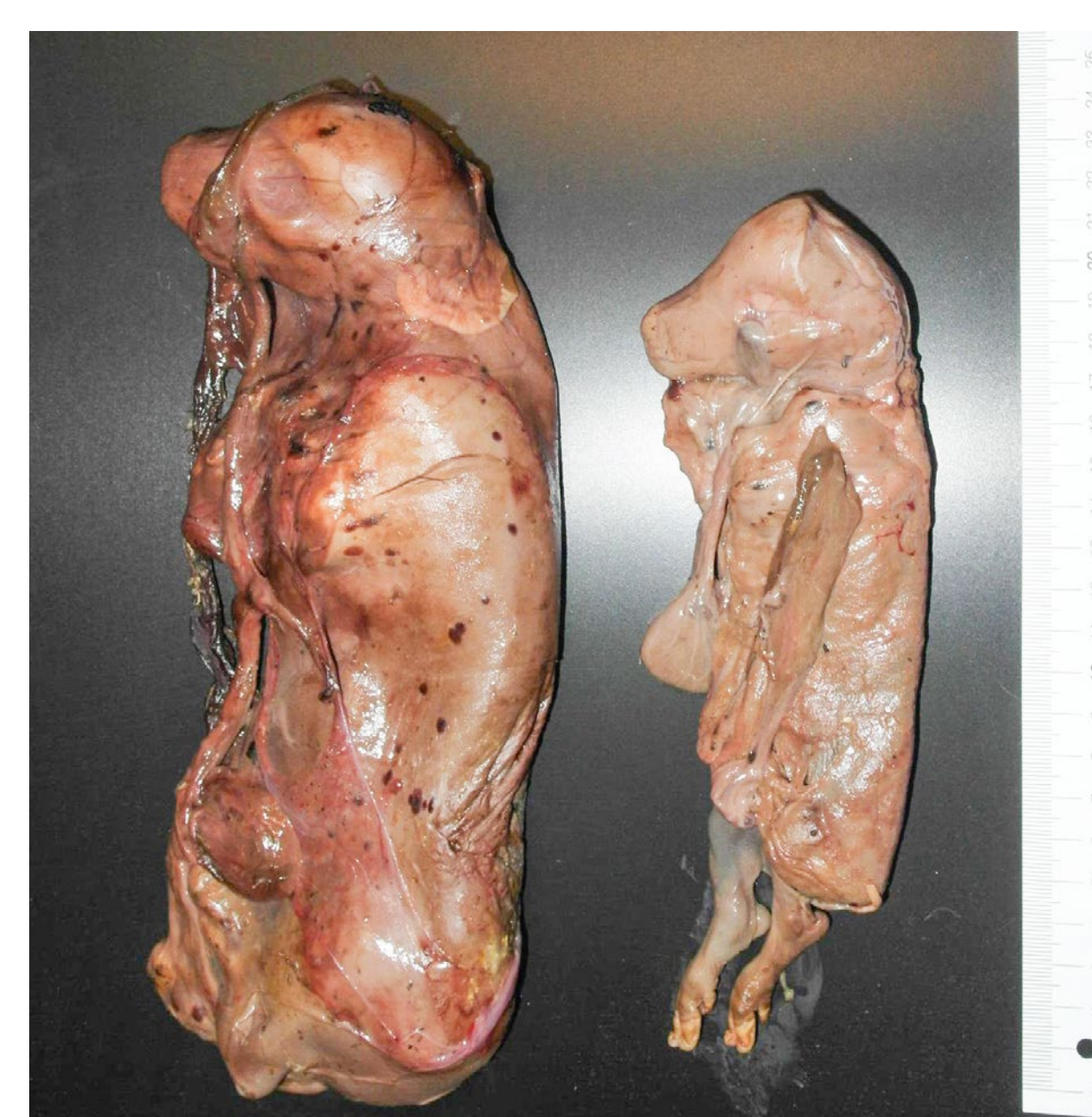
naive pigs during two month leading to a fatal clinical disease. The fourth group, which was vaccinated immediately after arrival, was unaffected. To reduce further virus spread, re-mass vaccination was performed successfully in the herd.

After implementing a strict vaccination scheme, clinical signs dissolved and reproduction rates improved to normal.

Conclusively, a detailed anamnesis regarding vaccination schemes are crucial for thorough diagnostic proceedings and expedient treatment as well as disease prevention.



Picture 1a: Large variation in the size of mummies can be due to infections with Porcine Circovirus type 2 (PCV2).



Picture 1b: 2 aborted fetuses



Picture 2: Sow mass vaccination with Ingelvac CircoFLEX®

