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FIRST ATYPICAL PORCINE PESTIVIRUS ASSOCIATED OUTBREAK OF CONGENITAL TREMOR IN SWITZERLAND

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Introduction

In recent years, several outbreaks of congenital tremor in piglets associated with atypical porcine pestivirus (APPV) infection have been described in Europe. Until recently, the associated mortality has been reported being low, and only limited information is available regarding pathogenesis, prevalence and epidemiology of APPV.

Material & Methods

In a Swiss piglet-producing farm with 182 sows, an acute outbreak of congenital tremor was observed. Approximately six months before the outbreak, the farm started buying replacement gilts instead of breeding their own. Unexpectedly, in the first farrowing batch including purchased gilts, typical symptoms of congenital tremor occurred in litters only from homebred sows (n=6). The within-litter prevalence in this batch varied from 25-83% and the mortality varied between 22%-71%. Two typical diseased piglets were submitted to the veterinary faculty for further examination.

Results

The clinical examination revealed that both animals suffered from congenital tremor, but had a good general health condition. No significant lesions were observed during necropsy, but histopathological examination revealed multifocal vacuolation of mainly white matter that was most prominent in cerebellum, brainstem and midbrain and associated with suspected hypomyelination. An APPV RT-PCR targeting targeting the NS3 and NS4B encoding regions of APPV was performed to confirm the diagnosis. For further evaluation, a continuous monitoring of the appearance of congenital tremor was established. A constant decrease of clinical signs and within-litter prevalence in the subsequent farrowing batches was recorded, finally reaching baseline values as observed before the introduction of the new gilts.

Discussion

In this first case report of APPV in Switzerland, a very high mortality rate of piglets in affected litters was observed. It is most likely, that APPV was introduced and spread by purchased gilts.

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