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Publication date:
2011

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Citation (APA):
Kvisgaard, L. K., Hjulsager, C. K., Rathkjen, P. H., Breum, S. Ø., Trebbien, R., & Larsen, L. E. (2011). PRRSV outbreak with high mortality in northern part of Denmark. Abstract from 12th International Nidovirus Symposium, Acme, Michigan, United States.

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PRRSV OUTBREAK WITH HIGH MORTALITY IN NORTHERN PART OF DENMARK

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Porcine reproductive and respiratory syndrome virus (PRRSV) belongs to the *Arteriviridae* family and is the cause of significant respiratory and reproductive disease in swine worldwide. Strains of PRRSV are divided into two genotypes: type 1 and type 2, also referred to as EU and US type, respectively, due to their geographical origin. In Denmark the type 1 virus was first recognized in 1992, and since 1996 both types of PRRSV are widely spread. Approximately 50 % of the herds are seropositive for PRRSV antibodies against either or both types of PRRSV.

In November 2010, a severe case of PRRSV with high mortality rate in piglets occurred in Northern Jutland. PRRSV type 2 was detected by real-time RT-PCR in lung tissue from 10 days old piglets. The outbreak was treated by extensive vaccination with Ingelvac[®] PRRS MLV and strict management procedures. 6 weeks later, the mortality of liveborn piglets had dropped to normal levels. From week 6 until week 14 after the initial outbreak, up to 75 % of fetuses were born as mummified. PCV2 and PPV have not been detected in the fetuses. 15 weeks after the initial outbreak, the number of liveborn piglets and the mortality until weaning was back to normal. Total losses of piglets until weaning for the 15 week period were about 50 %. Losses in the nursery and finisher barn are still substantial 15 weeks after the initial outbreak.

Sequencing of ORF5 and ORF7 confirmed the type of PRRSV to be type 2, and revealed distinct nucleotide differences compared to other Danish PRRSV type 2 sequences in the ORF5 region. We speculate that the virus causing this outbreak is more pathogenic than previously recognized Danish PRRSV type 2 strains.