



Molecular basis for porcine parvovirus detection in dead fetuses

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ABSTRACT. Reproductive failures are still common grounds for complaint by commercial swine producers. Porcine parvovirus (PPV) is associated with different clinical reproductive signs. The aim of the present study was to investigate PPV fetal infection at swine farms having ongoing reproductive performance problems. The presence of virus in fetal tissues was determined by nested-polymerase chain reaction assay directed to the conserved NS1 gene of PPV in aborted fetuses, mummies and stillborns. Fetuses show a high frequency of PPV infection (96.4%; N = 28). In 60.7% of the fetuses, PPV were detected in all tissue samples (lung, heart, thymus, kidney, and spleen). Viral infection differed among fetal tissues, with a higher frequency in the lung and heart ($P < 0.05$).

Fetuses with up to 99 days of gestational age and from younger sows showed a higher frequency of PPV ($P < 0.05$). No significant difference in the presence of PPV was detected among the three clinical presentations. The results suggest that PPV remains an important pathogenic agent associated with porcine fetal death.

Key words: Swine; Porcine parvovirus; Nested-polymerase chain reaction; Abortion; Stillbirth; Mummification