DIAGNOSIS OF PORCINE PARVOVIRUS INFECTION BY NESTED POLIMERASE CHAIN REACTION IN LITHUANIA

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Summary. The aim of performed study was to introduce nested polymerase chain reaction (PCR) method for diagnosis of porcine parvovirus (PPV) infection in Lithuania and to evaluate the importance of PPV and mixed infections on reproduction failure in pigs. For diagnosis of PPV infection haemagglutination inhibition (HI) test and polymerase chain reaction (PCR) were used. Altogether 281 serum samples of sows and gilts from 2 to 9 months of age were collected at 10 large pig farms in Lithuania and tested by HI test. It was shown that 100.0% of sows had active immunity to PPV infection. In gilts of 2-3 month and 4-5 month of age 100% of investigated animals had no active immunity and in gilts of 6-7 months and 8-9 months of age only 29.4% and 5.0% had no active immunity, respectively.

Nested PCR method was used to diagnose the PPV infection in 54 stillbirths (out of 12 swine farms) and 60 (6 serum pools) seronegative gilts of 5 months age (out of one swine farm). It was found that 20.4% samples of lungs of stillbirths were PPV DNA positive and at least 4 serum samples out of 60 gilts were PPV infected or virus carriers.

Key words: porcine parvovirus infection, HI, PCR.