PIG ENZOOTIC ABORTION STUDY

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Summary: Pig enzootic (viral, neorexic, pararirexic, chlamydial) swine abortion is antropozoonosis caused by binarily multiplying intercell parasites.Chlamydia of this type can affect both humans and animals. The study investigates the spred of *C. psittaci* in various pig age groups and compares the PCR test method with other diagnostic methods for the given disease.

Out of the 2502 blood serum samples tested 192 (7.67 %) were found positive. The spread of chlamydia in various swine age groups was determined and various investigation methods of the disease were compared. The number of chlamydia infected pigs was found to be 2.72 times higer in the sick fattening pig group compared to that in the entire fattening pig group. Chlamydial infection was 2.49 times higer in the breeding group as against that in the common group. The spread of chlamydia in individual farms ranged from 0 to 22 %. The quantitative specific antibody evalution obtained is 1.24 ± 0.59 $\log_2$.

Tests of 1633 blood samples by direct immuno-fluorescence method (DIF) revealed 487 or 1.9 times more positive reactions than the number obtained by complement fixation (CF). Indirect fluorescent antibody (IFA) of 614 pig blood samples showed 2.58 times more chlamydia infection cases to those indicated by CF. IFA applied to143 samples detected 1.78 times more positive reactions than the number shown by CF. 94 samples were tested by immuno-fluorescence method and the resulting number of pigs with antichlamydia antibodies 2.14 times exceeded that found by CF. Comparative evaluation of pig enzootic abortion methods shows that the IFA method is 2.57 times sensitive than CF and diagnoses the higest number of pigs carrying specific antibodies (35.67). MIF is 17.01 times more sensitive than CF. For comparative evaluation of polimerase chain reaction (PCR) 83 samples from sick pigs were tested resutling in 36.57 % positive reactions, i. e. 22.89 % more than by the DIF method. Testing of 252samples by DIF and cell culture (CC) methods led to the conclusion that CC method is 8.49 % more sensitive than the DIF one. It was also established that PGR could beapplied in chlamydia species differentation enabling to distinguish *C. psittaci* from *C. trachomatis* (CMOMPN/CTMOMPC) and *C. pneumoniae* (CMOMPN/CPNMOMP).

Keywords: pigs, chlamydia, diagnostics, PCR