No overall relationship between average daily weight gain and the serological response to Mycoplasma hyopneumoniae and Actinobacillus pleuropneumoniae in eight chronically infected Danish swine herds

The association between the average daily weight gain (from approximately 4 to 20 weeks of age) and the serological responses to respiratory infections was examined in a longitudinal study including 625 pigs from eight chronically infected herds. Pigs were bled every 4th week (starting from approximately 4 weeks of age), and sera were analyzed for antibodies to Mycoplasma hyopneumoniae and Actinobacillus pleuropneumoniae serotypes 2, 5-7 and 12. Mixed analysis of covariance analyzed the relationship between the average daily weight gain and a categorical variable defining seroconversion as none, early or late as compared to the median time (estimated across herds) of seroconversion for the particular pathogen. The variables "gender", "weight at an approximate age of 4 weeks" and "time" (defining the exact length of the follow-up period), were included as explanatory variables, and "litter" and "herd" were included as explanatory random variables. The individual pig was the unit of concern. The variable defining time at seroconversion was not significantly associated with the average daily weight gain, when evaluating models across all eight herds. The apparent lack of effect could be because most pigs included in the study were subclinically infected, or because a temporary negative influence of the infections is hidden due to an increased growth in the period following infection. In conclusion, at least in these eight herds, seroresponses to M. hyopneumoniae and A. pleuropneumoniae could not be used to predict the effect of the pathogens on the daily weight gain.
Scopus rating (2012): CiteScore 2.45 SJR 1.265 SNIP 1.436
Web of Science (2012): Impact factor 2.389
ISI indexed (2012): ISI indexed yes
Web of Science (2012): Indexed yes
BFI (2011): BFI-level 2
Scopus rating (2011): CiteScore 2.24 SJR 1.194 SNIP 1.295
Web of Science (2011): Impact factor 2.046
ISI indexed (2011): ISI indexed yes
Web of Science (2011): Indexed yes
BFI (2010): BFI-level 2
Scopus rating (2010): SJR 1.156 SNIP 1.284
Web of Science (2010): Impact factor 2.07
Web of Science (2010): Indexed yes
BFI (2009): BFI-level 2
Scopus rating (2009): SJR 1.032 SNIP 1.338
Web of Science (2009): Indexed yes
BFI (2008): BFI-level 2
Scopus rating (2008): SJR 1.056 SNIP 1.258
Web of Science (2008): Indexed yes
Scopus rating (2007): SJR 1.009 SNIP 1.353
Web of Science (2007): Indexed yes
Scopus rating (2006): SJR 1.06 SNIP 1.277
Web of Science (2006): Indexed yes
Scopus rating (2005): SJR 0.931 SNIP 1.414
Web of Science (2005): Indexed yes
Scopus rating (2004): SJR 0.812 SNIP 1.146
Web of Science (2004): Indexed yes
Scopus rating (2003): SJR 0.846 SNIP 1.323
Web of Science (2003): Indexed yes
Scopus rating (2002): SJR 0.857 SNIP 1.427
Web of Science (2002): Indexed yes
Scopus rating (2001): SJR 1.045 SNIP 1.48
Web of Science (2001): Indexed yes
Scopus rating (2000): SJR 0.623 SNIP 1.261
Web of Science (2000): Indexed yes
Scopus rating (1999): SJR 0.647 SNIP 1.005
Original language: English
Keywords: serological response, Actinobacillus pleuropneumoniae, swine respiratory disease, pig-microbiological disease, Mycoplasma hyopneumoniae, daily weight gain
DOIs:
10.1016/S0167-5877(01)00174-X
Source: orbit
Source-ID: 230730
Research output: Research - peer-review › Journal article – Annual report year: 2001