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ACUTE PHASE PROTEINS IN PIGS EXPERIMENTALLY INFECTED WITH AUJESZKY´S DISEASE VIRUS

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Introduction

Viral infection is a recurrent disease in pigs causing important economic loses. In this work the response of some acute phase proteins (APPs), pig-MAP, haptoglobin, C-reactive protein (CRP) and apo A-I have been studied in pigs experimentally infected with Aujeszky´s disease virus. The effect of an experimental Aujeszky´s disease vaccine was also studied.

Materials and Methods

Fifteen 18 weeks old pigs were inoculated with three infectious doses of a reference strain of Aujeszky´s disease virus. Seven of this pigs had been previously vaccinates at ages of 10 weeks, with an experimental Aujeszky´s disease vaccine. The other eight pigs had not been immunized. Blood samples were obtained before the injection (day 0) and 4, 8, 15 and 22 days post injection (p.i.).

The concentration of positive APPs, pig-MAP, Hp and CRP and negative APP, apo A-I, were measurement by radial immunodiffusion using specific antiporcine APP antisera.

Results

The effect of the vaccine has been shown in this experimental model. A minor APP response and only moderate clinical sings of disease has been shown in pigs previously immunized. In contrast, pigs no vaccinates developed a severe Aujeszky´s disease and a high variation in APP concentrations. In this case, related to the day 0 before the infection, pig-MAP increased 5 times, Hp in some animals more than 100 times, CRP 6 times and apo A-I decreased 3 times.

Conclusion/Discussion

A high acute phase response was observed in pigs experimentally infected with Aujeszky´s disease virus. Moreover, the experimental vaccine used here mean moderated clinical symptoms of the disease and this correlated with a minor variation of APP. Our results indicated that response of APPs followed up the clinical symptoms of the outcome of this viral disease.

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