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VACCINATION AGAINST *MYCOPLASMA HYOPNEUMONIAE* WITH HYOGEN®: PREVALENCE AND SEVERITY OF LUNG LESIONS

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Introduction

Vaccines have demonstrated their effectiveness against *Mycoplasma hyopneumoniae* in reducing clinical signs and lung lesions and improving productivity parameters.

Material and methods

In total 3622 pigs were divided in three groups. Group A was treated with Vaccine A, a combined PCV2+M.hyo RTU vaccine (n=1008), Group B with Hyogen®, Ceva (n= 1607) and Group C remained as non-vaccinated control (n= 1007). Altogether 612 lungs from Group A, 606 from Group B and 445 from Group C were examined at the slaughterhouse for the prevalence of EP-lesions according to Ceva Lung Program. Lungs from the same groups were examined in three different batches according to the order of being sent to the slaughterhouse (start, middle or final). Samples of lungs were obtained at the slaughterhouse and examined by qPCR for Mh DNA.

Results

There were significant differences ($p<0.001$) for total average score between Group A (0.46±0.024) and B (0.13±0.011), and between B and C (0.49±0.027). Significant differences were not found between groups A and C. The average score of each batch (start, middle or final of the group) was 0,53±0,043, 0,56±0,038 and 0,30±0,038, respectively, for Group A, 0,037±0,006, 0,037±0,006 and 0,33±0,026 for Group B, and 0,31±0,038, 0,59±0,04 and 0,70±0,038 for Group C. The means of Mh DNA showed significant differences between both vaccinated groups and control group ($1 \cdot 10^6$ in group A, $3.75 \cdot 10^5$ in group B, and $8 \cdot 10^8$ in control group; $p=0.007$).

Conclusions

Pigs vaccinated with Hyogen® presented lower frequency and average score of lung lesions than the group treated with the other vaccine and control group. Also the amount of Mh bacterial DNA in slaughter pigs was different between both vaccines and the control group. This study demonstrated that Hyogen® protected the pigs better against the Mh infection than the PCV2+Mhyo combined RTU vaccine.