EFFECT ON POST-WEANING PIG MORTALITY RATES OF HIPRASUIS GLASSER® VACCINE APPLIED SIMULTANEUOSLY IN SOWS AND PIGLETS IN A GLASSER DISEASE FARM CASE IN PHILIPPINES

Sergi Bruguera[1], Maria I. Torres[2], David Llopart[1]
[1]Pig Technical Department of Laboratorios Hipra, S.A. 17170 Amer, Spain. [2]Laboratory and Technical manager of Diagnos™, HIPRA Philippines, INC.

Introduction

Haemophilus parasuis (Hps), which causes Glasser's disease (GD) in pre-weaning and post-weaning pigs, is an important source of economic losses in pig production operations. Treatments with sensible antibiotics and/or prevention through vaccination are valid strategies for controlling clinical signs of GD. Recently, different vaccination protocols with *Hps* vaccines have been object of study and discussion[1, 2, 3, 4]. The objective of this study is to measure the effect on mortality rates in post-weaned pigs in a real GD farm case when a specific vaccine program with Hiprasuis Glasser® vaccine (HIPRA) was applied either in sows or piglets.

Material and methods

The study was done in a commercial pig farm with 1200 reproductive sows located in Valenzuela area (Philippines). It was in a farrow to finish operation. Piglets were weaned at 28 days of age and moved to nursery units where they remained till 10 weeks of age. Post-weaned pigs with a ranged age in between 5 to 8 weeks of age suffered during several months of frequent casualties. Necropsy findings showed fibrinous polyserositis, arthritis and pneumonia. The diagnosis of GD was confirmed either by bacteria isolation from respiratory and non-respiratory organs. On January 2005 with the objective to reduce the losses due to GD a new vaccination program with a bivalent (serum type 1 and 6) serum type vaccine against Glasser disease (Hiprasuis Glasser®) was applied. The entire population of sows were vaccinated and re-vaccinated again 3 weeks later. Thereafter these two mass vaccinations one booster vaccine dose was applied in sows every 6 months. Simultaneously piglets were vaccinated at 7 and 21 days of age.

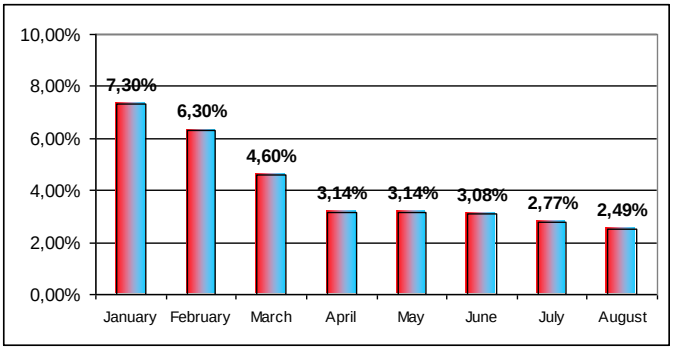
Monthly mortality rates in nursery units (from 4 to 10 weeks of age) were monitored the next 7 months after the onset of this vaccine program application.

Results

Monthly mortality rates in nursery units showed a decreasing trend with a minimum value of 2.49% on August 2005 (Figure 1). Lower mortality rates were accompanied by lower morbidity (data not shown). *Hps* clinical signs were not observed later on when vaccinated pigs were moved to fattening units. Moreover, fattening mortality rates (from 10 weeks to slaughter) kept stable (4%) during the entire trial and were not influenced by the *Hps* vaccination program at young ages.

Most probably fattening mortality rates didn't change as the nursery mortality rates because of other pathogens, rather than *Hps*, were playing a more important pathogenic role during this last fattening-growing period.

Figure 1. % Monthly mortality rates in nursery pig units (from 4 to 10 weeks of age) after the application of a regular vaccination program (on January 2005) either in pigs or sows with Hiprasuis Glasser® vaccine.



Discussion

As in previous results[1] we also observed that the simultaneous application of a *Hps* vaccine in sows and piglets reduced clinical problems due to *Hps* in pigs.
Maternal derived antibodies (MDA) against *Hps* can protect piglets against *Hps* clinic disease but cannot prevent *Hps* colonization in piglets[4]. Thus, in such a way that piglets requires active immunization through vaccination or/and natural infection in order not to suffer later on GD outbreaks. Previous studies[2, 4] showed that success of early *Hps* vaccination in piglets is independent to sow vaccination. It may occur that contrary to what is observed with other pathogens, MDA against *Hps* in piglets may not neutralize consistently enough the positive immune stimulation effect of an *Hps* vaccine.

Conclusion

Within these field conditions simultaneous sow and piglet vaccination with Hiprasuis Glasser® vaccine reduced mortality rates in nursery pigs due to *Haemophilus parasuis* infection.

References

1-Geurts, V. et al. 2006. 19th IPVS Congress. Denmark. Vol 1. pag 203.
2-Kirkwood, R.N. et al. 2001. J.Swine Health Prod. 2001;9(2): 77-79.
3-Ritzmann, M. t al. 2006, 19th IPVS Congress. Denmark. Vol 2. pag 252.
4-Solano-Aguilar, G.I. et al. 1999. Am J Vet Res. 1999;60:81-87.