

Classical Swine Fever: Old Disease, New Challenges

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The White Book launched by Merial

A New White Book launched by Merial at recent Asian Pig Veterinary Society Congress, Manila, Philippines.

During the 2nd Congress of the Asian Pig Veterinary Society Congress (19 & 20 September 2005) held at the Edsa Shangri-la Hotel, Manila, a Corporate Symposium was organised by Merial on classical swine fever (better known in the Philippines as hog cholera).

We cannot forget that hog cholera is an old disease that continues to be a scourge to the Asian pig industry. CSF inflicts serious economic losses in control efforts, pig production and also lost trade opportunities. To date CSF has defied attempts by most Asian veterinary authorities to eradicate it.

So three renowned scientists particularly well suited to speak about three different aspects of CSF control were invited to address Merial invitees: Dr. Joris Vandeputte (Trivarop, Colfontaine, Belgium), Dr. Jeroen Dewulf (Faculty of Veterinary Medicine, Ghent University, Belgium) and Dr. Ng Fook Kheong (Agri-Food & Veterinary Authority of Singapore).

In his presentation, Dr. Vandeputte traced the history of the European eradication program and the lessons that Asia can derive from the European experience. The experience of the EU countries demonstrated that with highly effective vaccines combined with effective identification of swine, control of animal movement, early diagnosis and rapid elimination of infected herds, eradication of CSF is possible. Dr. Vandeputte spoke with the authority that can only come from experience, as he was one of the scientists that contributed to the early eradication efforts in the European Union.

While the epidemiology of the disease in endemic parts of Asia can be comparable to the EU prior to eradication from several aspects, there are many factors ? political, economic, social and geographical - that are unique to Asia. Dr. Ng Fook Kheong posed the question of whether the countries of South East Asia should aspire to eradicate or merely control the disease. He highlighted the many basic requirements that need to be put in place before eradication can be envisaged. Dr. Ng discussed the realities that veterinary authorities, scientists as well as farmers would have to face while making ambitious plans for eradication. As a scientist from the Veterinary Authority in Singapore, Dr. Ng is in a unique position to discuss the constraints faced by South East Asian Governments in an undertaking of this nature.



Left to right: Dr Henry Too (Merial Asia) who chaired the session, Dr Jeroen Dewulf,, Dr Joris Vandeputte, Dr Ng Fook Kheong

Dr. Jeroen Dewulf epitomises the cutting edge of scientific research into hog cholera. Dr. Dewulf discussed the epidemiology, concentrating on between and within herd transmission. Drawing on his research findings, he discussed the important requirements for vaccinal control of hog cholera. The unique feature of Dr. Dewulf's studies was the use of experimentally infected pigs in the transmission of the virus unlike previous studies which used inoculation of the virus as a method of challenge. In his trials on in-contact transmission of the virus, Dr. Dewulf re-affirmed that the modified live C strain vaccine (PESTIFFA®) is protective as early as 4 days after vaccination; it was also found to successfully prevent the excretion and transmission of the virulent virus used as challenge.

The three speakers brought in by MERIAL impressed the 'standing-room only' audience with their knowledge, experience and new research updates on this 'old disease'.



In addition to articles written by the invited speakers, two other articles are included in the White Book contributed by Dr. Guillermo Risatti from the University of Connecticut, USA and his co-authors, and Dr. Sanipa Suradhat from Chulalongkorn University, Thailand and her co-authors.

Dr. Risatti and his co-workers conducted a series of experiments evaluating the efficacy of the marker (killed) vaccines against CSF using PESTIFFA® as the reference modified live vaccine. Both groups of researchers from different parts of the world tested and confirmed the rapid protective response of PESTIFFA® within 4 days to one week after vaccination. Part of the work of Dr. Risatti et al., concerning the clinical, haematological, virological and serological parameters of PESTIFFA® is published in this new White Book. Of interest too is the correlation between E2 blocking ELISA and serum neutralisation tests for the detection of CSF antibodies following vaccination and challenge with the field virus. These findings are especially important in CSF endemic countries in Asia where commercial ELISA test kits are gaining widespread popularity as convenient and economical serological tools.

Dr. Sanipa and her co-workers have also conducted very important research in classical swine fever. Their article on the role of cell-mediated immunity and other factors on the induction of protective immunity go a long way in answering some perplexing questions about the lack of correlation between detectable antibodies and protection in pigs challenged within a week after vaccination.

The MERIAL Corporate Symposium together with the 2nd 'White Book' in the CSF series, represents the continuing effort of MERIAL to contribute to the advancement of scientific knowledge of this disease in Asia and worldwide for the greatest possible benefit of veterinarians and swine professionals 'in keeping with their philosophy i.e. making the vital difference.



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