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PRELIMINARY REPORT OF THE CHILEAN PRRS VIRUS ISOLATED, USING RT-PCR AND ELISA IN EXPERIMENTALLY INOCULATED PIGS.

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Introduction: Porcine reproductive and respiratory syndrome (PRRS) is considered one of the most important disease in swine production today, been responsible of important economic losses because it's directly effect in production and reproduction parameters, as well as the effect of secondary pathogens. The virus and the disease are widely distributed, and during the last years a lot of research it has been done. In Chile, during a government routinely surveillance, PRRS was first diagnosis by the end of 1999, and rapidly a control and eradication program was put in place by the government and the national pork association. However, there is not a lot of information about the Chilean isolated. The purpose of this study was to have preliminar information about viremia, nasal excretion and seroconvertion of pigs experimentally inoculated with the Chilean isolated.

Material and Method: 9 pigs were challenge intranasally with 7 ml, $10^{5.4}TCDI_{50}$, of the Chilean isolated and necropsy was done at 1/3 of the animals at 7, 14 and 21 dpi respectively. Additionally, 3 pigs were used as a negative control and necropsied at 21 dpi. Blood samples and nasal swabs were obtained from each animal at 0, 7, 14 and 21 dpi. Antibody titles were measure using a ELISA test from each blood sample. Additionally, the virus was detected using a RT-PCR from blood and from nasal swabs. Clinical signs and lesions at necropsy time were recorded (data not show).

Results and discussion: All the animals (negative control and inoculated pigs) were virus negative from nasal swabs and blood before the beginning of the experiment. Additionally, they were seronegative at that time also. The results of the inoculated pigs are summarized in table 1. The virus was detected from blood in all inoculated pigs at 7 and 14 dpi, but at 21 dpi one of the pigs became negative. In addition, RT-PCR was able to detect the virus from nasal swabs only from 6 of 9 animals at 7 dpi, remaining negative to this test the rest of the time. Seroconversion was first detected in 3 of 6 animals at 14 dpi, and all of them became positives by 21 dpi. On the other hand, one of the negative controls was positive by RT-PCR from blood only at 7 dpi, and from nasal swabs at 7 and 14 dpi. It is possible that this animal got infected in the isolation units, or the samples got contaminated, or the results are false positive.

According to these results, the Chilean PRRS isolated virus is present in the blood as soon as 7 dpi, and antibodies are detectable a week later. These it is agree with results obtain with American strain. However, more research with larger number of animals, and shorter time interval, is needed in order to confirm that. Similarly, more studies are needed in order to obtain more conclusive information about the time that the virus is present in nasal secretion and its possible role in transmission. However, these results suggest that apparently the virus is present in nasal secretion for short period of time. Additionally, it is very important to study the presence of different strains in the country and its pathogenicity.

Conclusion: Apparently, the Chilean PRRS virus isolated produce viremia at 7 dpi with antibody detection by RELISA 1 week later. Additionally, the virus is present in nasal secretion for short period of time.

	0	7	14	21
	dpi			
Blood RT-PCR	0	100	100	67
Swab RT-PCR	0	67	0	0
ELISA	0	0	50	100

Table 1: Results over the time in % of experimentally inoculated pigs with the Chilean isolated.

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