



## VIRAL DISEASES

VVD-047

### PHYLOGENETIC ANALYSES OF PORCINE CIRCOVIRUS TYPE 3 INFECT A SWINE PRODUCTION SYSTEM IN MEXICO CITY

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#### Background & objectives

In the United States and China, the presence of porcine circovirus type 3 (PCv3) has been described emerging disease that occurs mainly causing reproductive failures in females. Currently, in Mexico the presence of PCv3 has not been reported, however, in recent years has been detected increase in the number of cases of sows with reproductive failures, discarding the presence of other infectious agents present in national territory. The objective of this work is detecting the presence of PCv3 in females with reproductive failures in a swine production system in Mexico City.

#### Material & Methods

In swine production system in Mexico City, was identified two sows aborted in the second third of gestation and three gave birth to stillbirths. Samples of piglets born dead, abortions and females were taken for DNA extraction, DNA was sequenced from the complete PCv3 genome using the end-point polymerase chain reaction test (PCRpf) and sequencing by the Sanger method.

#### Results

The PCv3 was identified in samples of stillbirths, abortions and vaginal secretions; the phylogenetic analysis determines that the strain presents greater homology with the strains reported in United States.

#### Discussion & conclusión

In Korea, according to Taeyong, *et al* 2017, report a prevalence of PCV3 of 44-72%, while in China Wen *et al* in the same year, report the prevalence is between 19 and 32%. In addition, they report that the strain circulating in Korea has a 97 to 99% homology with the Chinese strain. The clinical signs associated with PCv3 in pigs are dermatitis, reproductive and urinary problems, however in the present study we only detected clinical signs associated with reproductive failure.