

THE MONITORING OF SWINE INFLUENZA VIRUS IN PIG HERDS IN SLOVENIA

CA21132 - European Swine Influenza Network (ESFLU)

Plut, J
Slavec, B
Golinar Oven, I
Štukelj, M

Veterinary faculty, University in Ljubljana, Slovenia




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GENERAL INFORMATION:


- high morbidity, low mortality, mild, mostly upper respiratory clinical signs in pig herds (dependant on a strain)
- important zoonotic potential
- no official surveillance in SLO and low practitioner interest in testing for SIV

AIMS:

- determination of prevalence in SLO pig population
 - detection of SIV in pigs and environment
 - determination of SIV subtypes
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MATERIALS & METHODS, RESULTS – 1ST PHASE:

- determination: prevalence, subtypes
 - sampling between 2017 and 2019
 - 700 sera samples, from 140 farms
 - Antibody detection, 2 commercial ELISA kits
 - ID Screen® Influenza A Ab Competition Multi-species Kit: 48% positive
 - IDEXX Influenza A Virus Ab Test Kit: 57% positive
 - Subtypes in positive samples (inhibition of hemagglutination):
 - Subtype **H₁N₁**: **78%**
 - Subtype **H₃N₂**: **22%**
 - Subtype **H₁N₂**: **none**
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MATERIALS & METHODS, RESULTS – 2ND PHASE:

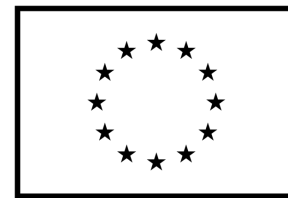
- detection of SIV in 6 farms reporting respiratory signs (nasal and environment swabs)
 - sampling in 2019 as part of a national research project CRP V4-1803
 - 114 nasal swabs and 35 environmental swabs (pool samples from feeders, drinkers, enrichment material)
 - RT-PCR for detection and subtypization:
 - 4 farms positive: H₁N₁ in all cases, average Ct: 24 Ct for nasal swabs, 27 Ct for environmental swabs → resampling on positive farms after 14 days
 - after 14 days: 2 farms positive, average Ct: 33 for nasal swabs, 36 for environmental swabs
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CONCLUSIONS:

- SIV is widespread in SLO pig herds
 - detection of antibodies is influenced by different commercial diagnostic kit used
 - H₁N₁ was predominant subtype in SLO pig population in the research period
 - genome comparison showed that the SIV detected in SLO belongs to a group of avian strain-like H1N1 SIV
 - the simple and inexpensive sampling of the environment with swabs offers the possibility of stress-free sampling for both the animals and the sampler
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THANK YOU FOR YOUR ATTENTION!



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