



VIRAL DISEASES

VVD-044

DETECTION OF HEPATITIS E VIRUS ON SWINE FARMS IN POLAND.

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Introduction

Hepatitis E virus (HEV) is the causative agent of hepatitis E in humans. Pigs are one of the main reservoirs for genotypes 3 and 4. Little is known about the circulation of HEV on swine farms and the effect of infection on health status of pigs. The objectives of the study were to demonstrate HEV circulation on Polish swine farms and the presence of the virus in serum, oral fluid and feces.

Material & Methods

Diagnostic materials were collected from 10 large scale and family-scale pigs farms with different health status located in Poland. From each farm, 10 blood samples, 10 stool samples and oral fluid were collected from several age groups. The serum and faeces samples were pooled 10 to 1. For the detection of HEV RNA real-time RT-PCR was performed (Jothikumar et al., 2006).

Results

HEV RNA was detected in all of the 10 tested pig farms. The virus RNA was usually detected in oral fluid and feces of 13-17 weeks old pig. In one farm the virus was detected in feces and oral fluid of pigs from 6 to 17 weeks of age. In one farm HEV was found in serum of sows while materials from weaners and fatteners were negative.

Discussion & Conclusion

The results of this study indicate that HEV is common in swine in Poland but its circulation patterns differ between farms. Testing of oral fluids by PCR can be useful for monitoring HEV circulation. Future research needs to focus on the potential factors having impact on infection dynamics and pig health, as well as the role of HEV from pigs for public health.