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TITLE

RESULTS OF THE SEROLOGICAL INVESTIGATION OF AUJESZKY'S DISEASE AMONG SWINE IN UKRAINE.

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CONTENT

Background and Objectives: This study was aimed to analyze the serological diagnostics of Aujeszky's disease among swine in Ukraine. Data are presented on serological studies of blood sera samples from swine for the presence of specific humoral antibodies against the Aujeszky's disease virus during six years (2011–2016).

Material & Methods: Blood sera samples were collected from all regions of Ukraine. The visual mapping and statistical analysis were conducted by using GIS technologies through software ESRI ArcGIS 10.1. The research for the presence of specific humoral antibodies against Aujeszky's disease virus in blood sera from domestic swine was performed by enzyme-linked immunosorbent assay (ELISA) using test system IDEXX Herd@PRV gI Antibody Test Kit.

Results: During the period 2011–2016, 9,026 blood sera samples from swine were studied and in 2,277 were received positive reactions against Aujeszky's disease (antibodies were detected in 25.2% animals from the total number of investigated swine). The monitoring investigations have covered all regions of Ukraine. For this period, 331 farms were examined and 103 of them turned disadvantage to Aujeszky's disease, which amounted to 31.1%.

During the analyzed period, the largest number of blood sera samples from swine were investigated in three regions: Dnipropetrovsk (1,789 samples), Kyiv (1,647 samples) and Donetsk (1,215 samples) oblasts. At the results of serological monitoring, it was established that the highest seroprevalence to Aujeszky's disease was registered in four oblasts: Kirovohrad – 57.1%, Kherson – 52.2%, Kharkiv – 49.3% and Sumy – 47.6%.

Antibodies to the virus were not detected in this species of animals from Ivano-Frankivsk, Luhansk, Rivne and Khmelnytsk oblasts.

Discussion & Conclusion: The obtained data of serological research allow us to approve that the causative agent of Aujeszky's disease circulates among the swine herds in Ukraine.