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Towards
the veterinary
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future

Main topic : Surveillance and control of emerging diseases

Prevalence of Inclusion Bodies Hepatitis (IBH) caused by Fowl Adenovirus (FAdv) in broiler and breeder farms in eastern and western regions of Thailand using Polymerase chain reaction (PCR)

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Introduction: Inclusion Bodies Hepatitis (IBH) is a type of liver disease caused by Fowl Adenovirus (FAdv) that affects the poultry industry in many countries. Birds that are acutely infected typically show severe anemia and die suddenly, while those with chronic infections may exhibit symptoms such as depression, anorexia, and emaciation. FAdv serotypes 2, 8b, and 11 have been reported in Thailand.

Methods: This study aims to determine the prevalence of IBH in commercial broiler and breeder farms in eastern and western Thailand using conventional Polymerase Chain Reaction (PCR) between October 2021 and December 2022. A total of 377 samples were collected from broiler and breeder farms, including 288 liver samples and 89 cloacal swab samples.

Results: The study found that FAdv was detected in chicken farms in the western region, with a 93.33% prevalence rate in liver samples (57.78% of serotype8b+serotype11, and 32.22% of serotype8b). In swab samples, the prevalence rate was 91.66% (serotype8b accounting for 91.66%). In the eastern region, FAdv was detected in 98.48% of liver samples (serotype8b+serotype11 accounting for 74.24%, and serotype8b accounting for 18.18%). In swab samples, the prevalence rate was 81.53% (serotype8b accounting for 46.18%, and serotype8b+serotype11 accounting for 24.62%).

Conclusion: The difference in results between liver and swab samples may be due to the fact that they were not taken from the same group of chickens, and liver samples are the direct target organ, making it more likely for swab samples to miss serotype11. This disease can be transmitted from sick animals to healthy ones through water, food, carriers, people, tools, and equipment used in animal husbandry. Therefore, good farm management practices can help reduce the spread of this disease on farms.