

عنوان مقاله:

Detection of mutant infectious bronchitis viruses of GI-23 lineage from commercial chicken flocks in Khorasan Razavi province, Iran in 2019

محل انتشار:

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خلاصه مقاله:

Infectious bronchitis (IB), caused by infectious bronchitis virus (IBV), is one of the most important respiratory diseases in poultry. The implementation of preventive measures, including vaccination and biosecurity, is necessary for controlling the disease. To maintain biosecurity, it is important to identify the entry route of new viruses into a region and characterizing markers such as unique mutations that make viruses traceable. During a genotyping study for IBV infected commercial chicken flocks in Khorasan Razavi province, 11 viruses from 11 broiler and layer chicken flocks were detected in different cities by PCR. Sequencing of the S1 partial gene followed by phylogenetic analysis showed that eight viruses can be classified in GI-23 lineage (Is-Variant2), two viruses are classified in GI-1 lineage (Mass), and one virus is classified in GI-12 lineage (Y93B). Although detected viruses of GI-23 lineage are originated from Iran, seven viruses have synonymous (T954C and G1056A) and non-synonymous (CY9YT) mutations that have not been previously reported. It was found that the new genetic changes in Iranian IBVs of GI-23 lineage occurred in two different regions in Khorasan Razavi. In conclusion, this study indicates that the high prevalence of GI-23 lineage viruses in Iran may enhance the chance of virus mutations and the emergence of new viral strains, so effective .vaccination and biosecurity measures are required to control the virus spread

کلمات کلیدی:

IBV, Genotyping, GI-23 lineage, Mutation, Iran

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