

عنوان مقاله:

(Pathogenicity study of Iranian genotype of avian infectious bronchitis virus (IR-1)

محل انتشار:

گفتمان پژوهش دامپزشکی، دوره 8، شماره 1 (سال: 1396)

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خلاصه مقاله:

Avian infectious bronchitis (IB) is a major cause of economic losses in poultry industry. The IB virus primarily affects respiratory tract, but various strains differ in their tropism for other target organs such as kidney and alimentary tract. The objective of this study was to estimate the pathogenicity of Iranian IBV variant (IR-1), which is limited exclusively to Iran. Specific pathogen free chicks were inoculated intranasally. Sera, fecal swabs and different tissue samples were collected on different days post infection (DPI). Clinical signs, gross pathology and histological changes were recorded. The viral load was quantified in the RNA extractions from different tissue samples using real-time PCR. Anti-IBV antibodies were detected in serum samples. The IgG antibody were found on ۲۱ and ۲۸ DPI. Severe histological lesions were observed in the trachea and lung while the lesions in kidney were appeared to be milder. Viral RNA was detected in all tested tissues from ۱ DPI to the last day of the experiment. The highest viral load was measured in the

trachea and feces on 1st and 5th DPI, respectively. It can be concluded the IR-1 had broad tropism for respiratory tract, digestive system, and renal tissue, reflecting its epitheliotropic nature, but it caused the most severe lesions in the respiratory tract. This was the first pathogenicity study of Iranian IR-1 IBV. Further knowledge of IBV pathogenesis provides the groundwork to inform more effective prevention practices

کلمات کلیدی:

Avian infectious bronchitis, Biochemical analysis, Histopathology, pathogenesis, Real-time PCR

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