

Comparison of infectious laryngotracheitis virus pathogenesis in Bovans White and LSL strains pullets by intratracheal pathogenicity and histopathology indices methods

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Abstract

Infectious laryngotracheitis (ILT) is a highly contagious viral respiratory disease of chickens. The objective of this study was to evaluate the pathogenicity indices of ILT virus in Bovans White and Lohmann Selected Leghorn (LSL) strains. Following isolation, identification and confirming the virus through molecular and serological tests, the viral titer was calculated by Spearman-kärber method. The ILT virus ($> 10^3$ EID₅₀) was inoculated to thirty 8-week-old pullets of each strain via the intratracheal route. The birds were observed for the clinical signs of ILT up to eight days. There was no significant difference regarding clinical signs, intratracheal pathogenicity index (ITPI) and histopathology index (HPI) between Bovans and LSL strains, respectively. The results of this study indicated that the ILT virus had relatively similar pathogenicity in both strains, however, Bovans strain may be seen as more sensitive to ILTV than LSL strain due to the higher ITPI and HPI.

Key words: Infectious laryngotracheitis, Layer chicken, Pathogenicity index, Histopathology

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