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Minimum infectious dose determination of the Korean isolated strain of infectious laryngotracheitis virus vaccine candidate strain by eye drop administration

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Infectious Laryngotracheitis (ILT) virus causes economic losses in poultry due to acute upper respiratory inflammation and reduction in egg production. In order to prevent outbreak of ILT virus, attenuated live vaccines were applied via eye drop or drinking water. Our previous study has developed a novel attenuated vaccine of Infectious Layrngotracheitis virus which possesses thermo-stable characteristic. This feature provides better control of mutation of live vaccine. In our study, group of chickens immunized with TS-V1 vaccine via eye drop, showed protection of the respiratory tract when vaccinated over 102.5 TCID50 dose with positive ELISA titer. Furthermore, positive control group showed decrease in body weight change on 4 and 5 day post challenge. Whereas, vaccinated groups over 102.5 TCID50 dose all showed positive body weight changes. In summary, we have demonstrated the minimum infectious dose for the attenuated Korean isolated strain of infectious laryngotracheitis virus vaccine candidate strain by eye drop administration is 102.5 TCID50. This study will be helpful of developing future vaccination protocols and implementing them properly.

Biography

Dam Hee Park is studying Master's degree at Konkuk University. He has passion on his work at avian diseases. He is interested in current avian infectious diseases such as infectious bronchitis virus, infectious laryngotracheitis virus and avian influenza. Additionally, he wants to study about variable ways to eradicate or alleviate avian infectious diseases. His final goal as a poultry veterinarian is to take care of Asian poultry farms.

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