

COMPARISON OF ANTIBODY RESPON AND PROTECTIVE OF CHICKEN AFTER VACCINATED BY ACTIVE ND LENTOGENIC STRAIN RIVS2 AND LENTOGENIC STRAIN LA SOTA

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ABSTRACT

Newcastle Disease is one of important disease in Indonesia because it has high morbidity and mortality. However, it can be prevented by combination of biosecurity and regular vaccination program. By given active vaccine, chicken has more immune respons and protected from the virus, especially if it is given active *ND lentogenic* strain *RIVS2* and *lentogenic* strain *La Sota*. This research aims to find out the differences of titer antibody from the chicken which vaccinated by *ND* active *lentogenic* strain *RIVS2* and strain *La Sota* vaccine and also to determine the vaccine roles that given to the chicken can have protection from *ND* virus. This research used 24 chickens and divided into 3 groups, each group consists 8 chickens. P1 group given *ND* active *lentogenic* strain *RIVS2* vaccine in 2 months old, P2 group given *ND* active *lentogenic* strain *La Sota* in 2 months old and K group as the chicken controller given physiology *NaCl* in 2 weeks old. Vaccine given done by orally dropped based on the dose for each treatment 0,3 ml/chicken. Blood taking done 2, 4, 6 weeks old. Titer antibody measurements using *HI* micro-tecnique test and for the result using log2. The research showed active *ND lentogenic* strain *RIVS2* (P1) has different antibody titer with *lentogenic* strain *La Sota* (P2), but P2 vaccine, which has higher titer antibody, can cause side effect after vaccination. That's why it is better to use active *ND lentogenic* *RIVS2* vaccine than *lentogenic* strain *La Sota* vaccine for the first vaccination. The result of *challenge test* (used *ND velogenic* virus), the mortality of P1 and P2 chicken had the same percentage of 0%, but P2 showed pathology anatomy alterations because of the infection from *ND* virus. *Booster* is needed for the implementation of active vaccine, especially if it is used strain *RISV2* vaccine, in order to have longer immunity.

Key words: *Newcastle Disease* vaccines, comparison of antibody respons, active vaccine.