

**PASSIVE IMMUNITY LEVEL IN BROILER CHICKEN INFECTED WITH  
VARIOUS DOSE OF SPOROZOITE ON CAECA COCCIDIOSIS**

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**ABSTRACT**

The aim of research is to know the passive immunity level in broiler chicken infected with various doses sporozoites of *E. tenella* on caecal coccidiosis. The complete random design of research was used in this experiment. Forty of broiler divided into four treatments and each treatment composed ten replications. P0 was chicken group without serum administration then challenged with  $8 \times 10^4$ . P1, P2, P3 were chicken group with serum injection then challenged with  $2 \times 10^4$ ,  $4 \times 10^4$ ,  $8 \times 10^4$  respectively. Observation in this research were clinical symptoms, histopathological featuring (hemorrhage, inflammation, villi rupture), and oocyst production. The data of clinical symptoms were analyzed descriptively. Oocyst production was analyzed using ANOVA and histopat scoring was analyzed using *Kruskall-Wallis* test. On sporozoite inoculation step after serum injection, level of clinical signs such as appetite, weakness, and diarrhea was negative on P1, P2, P3 groups. Passive immunity of P2 and P3 was relatively equal resistance. In P1 the resistance level given by passive immunity was the best compared to P2 and P3 so P1 was number of sporozoite dose in *E. tenella* which the most effectively affected the passive immunity level in broiler chickens infected with coccidiosis with  $2 \times 10^4$  dose of *E. tenella* sporozoite.

**Key words:** *Eimeria tenella*, sporozoites, passive immunity

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