

**COMPARISON OF PATHOLOGICAL CHANGES OF CECUM IN
BROILER CHICKENS BETWEEN CHALLENGE TEST WITH
LABORATORY AND WILD STRAIN *Eimeria tenella***

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ABSTRACT

This research was aimed to determine the effect of challenge test on pathological changes of cecum and comparison between challenge test using wild strain and laboratory strain *E. tenella* in broiler chickens which had been infected with earlier low dose. First infections with low dose were divided into 25 oocysts, 50 oocysts, and 100 oocysts. Infections continued with 5000 oocysts to all groups. This research was used five weeks old broiler chickens (*Gallus gallus*) strain CP 707. Chickens were divided into control and 6 treatment groups. C was chickens that did not vaccinated and infected with challenge test. T1 was chickens that had been infected with 25 oocysts laboratory strain *E. tenella* and continued with 5000 oocysts. T2 was chickens that had been infected with 50 oocysts laboratory strain *E. tenella* and continued with 5000 oocysts. T3 was chickens that had been infected with 100 oocysts laboratory strain *E. tenella* and continued with 5000 oocysts. T4 was chickens that had been infected with 25 oocysts wild strain *E. tenella* and continued with 5000 oocysts. T5 was chickens that had been infected with 50 oocysts wild strain *E. tenella* and continued with 5000 oocysts. T6 was chickens that had been infected with 100 oocysts wild strain *E. tenella* and continued with 5000 oocysts. *E. tenella* challenge test was still causing significant changes in macroscopic and microscopic figure of cecum. Comparison between wild and laboratory strain *E. tenella* was no difference at the same dose in each treatment.

Key words: challenge test, *E. tenella*, wild strain, laboratory strain, pathological changes