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# Anticoccidial Effects of the Herbal Mixture in Boilers after Eimeria spp. Infection

**Authors :** Yang-Ho Jang, Soon-Ok Jee, Hae-Chul Park, Jeong-Woo Kang, Byung-Jae So, Sung-Shik Shin, Kyu-Sung Ahn, Kwang-Jick Lee

**Abstract :** Introduction: Antibiotics have been used as feed additives for the growth promotion and performance in food-producing animals. However, the possibility of selection of antimicrobial resistance and the concerns of residue in animal products led to ban the use of antibiotics in farm animals at 2011 in Korea. This strategy is also adjusted to anticoccidial drugs soon but these are still allowed for the time being to use in a diet for the treatment and control for the enteric necrosis in poultry. Therefore substantial focus has been given to find alternatives to antimicrobial agents. Several phytogenic materials have been reported to have positive effects on coccidiosis. This study was to evaluate the effects on anti-coccidial effect of oregano oil based herb mixture on Eimeria spp. in poultry. Materials and Methods: A total of one day-old boiler chickens divided into six groups (each group=30 chkckens) were used in this study. The herbal mixture was fed with water freely as follows: two groups, one infected with Eimeria spp. and the other group served as controls without herbal mixture respectively; 0.2ml/L of oregano oil; 0.2ml/L of oregano oil and Sanguisorbae radix; 0.2ml/L of Sanguisorbae radix; last group was fed with dichlazuril diet as positive control. Sporulated Eimeria spp. was infected at 14 day-old. Following infection, survival rate, bloody diarrhea, OPG (oocyst per gram) and feed conversion ratios were determined. The experimental period was lasted for 4 weeks. Results: Herbal mixture feeding groups (Group 3,4,5) showed low feed conversion ratio comparing with negative control. Oregano oil group and positive control group recorded the highest survival rate. The grade of bloody diarrhea was scored 0 to 5. Herbal mixture feeding groups showed 2, 3 and 1 score respectively however, group 2 (infection and no-treatment) showed 4. OPG results in herbal mixture feeding group were 3 to 4 times higher than diclazuril diet feeding group. Conclusions: These results showed that oregano oil and Sanguisorbae radix mixture may have an anti-coccidial effect and also affect chick performance.

**Keywords :** anticoccidial effects, oregano oil based herb mixture, herbal mixture, antibiotics
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