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The efficacy of certain feed additives for the prevention of *Campylobacter jejuni* infection in broiler chickens

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In this study, the efficacy of acidifiers (lactic and formic acids) and probiotic preparations containing *Pediococcus acidilactici* (*P. acidilactici*) and *Saccharomyces boulardii* (*S. boulardii*) in reducing of *Campylobacter jejuni* (*C. jejuni*) infection in broiler chickens was investigated. One hundred and three-day-old broiler chicks were used. Three birds were euthanized for *C. jejuni* re-isolation at day old. One hundred chicks were assigned into 4 equal groups each composed of 25 birds. Groups 1, 2 and 3 were fed on ration containing acidifiers, *P. acidilactici* and *S. boulardii*, respectively; from day old till 5 weeks old. Chicks of group 4 were fed on plain ration (control). At 2 weeks of age, each bird was orally challenged with *C. jejuni*. Groups were kept for 3 weeks recording signs and mortalities. Faecal swabs were collected at different intervals for *C. jejuni* shedding. Liver and intestine were collected weekly for *C. jejuni* re-isolation. At 5 weeks of age, all birds were subjected for post-mortem lesions scoring of *C. jejuni*. Results cleared more severe signs of greenish diarrhoea in control than treated birds with no mortalities in all groups. Significant ($p < 0.05$) reduction of *C. jejuni* shedding and re-isolation rates as well as lesions scoring was seen in groups treated with *S. boulardii* and *P. acidilactici* followed by acidifiers over control birds. In conclusion, both acidifiers and probiotic preparations greatly reduced and eliminated *C. jejuni* infection in broiler chickens.

Biography

Wafaa A Abd El-Ghany has completed her PhD from Faculty of Veterinary Medicine, Cairo University. She is a Professor in Poultry and Rabbit Diseases, Poultry Diseases Department, Faculty of Veterinary Medicine, Cairo University, Giza, Egypt.

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