



The Influence of Propolis on Liver Pathology in Broilers

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Abstract

One of the major problems in intensive fattening of chickens is liver damage¹. Recent studies have shown that the addition of propolis into the broiler diet protected liver tissue against the adverse effects of various hepatotoxic factors^{1,2}. The aim of this study was to investigate the influence of dietary supplementation of propolis on liver pathology in broilers. This experimental study was conducted on 120 Ross 308 broilers of equally distributed sex, which were randomly divided into three groups: control group (C) and two experimental groups of chickens (P1 and P2). Throughout the whole study (for 42 days) the control group of broilers was fed feed mixture while feed mixture that was fed to the experimental groups of broilers contained propolis in amount of 0,5 g/kg (P1 group) and 1,0 g/kg of feed mixture (P2 group). The study showed that the clusters of lymphocytes in the hepatocytes, the vacuolar degeneration, necrosis of the liver parenchyma, the bile ductule hyperplasia, and the various forms of pathological changes in the liver veins were more frequent in liver tissue samples of the control group compared to liver tissue samples of the experimental groups ($p<0.001$). The study further showed that the various forms of pathological changes in the liver arteries and steatosis of the liver parenchyma were more frequent in liver tissue samples of the control group compared to liver tissue samples of the experimental groups ($p=0.023$ and $p=0.003$, respectively). The supplementation with propolis has a strong protective effect on liver pathology in broilers.

References:

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