
Tea polyphenols reduce glucocorticoid-induced growth inhibition and oxidative stress in broiler chickens

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Abstract: 1. The effects of dietary polyphenols (PP) on growth and oxidative stress in the corticosterone (CTC)-treated broiler chickens model were studied.

2. Chicks (Cobb strain) were divided into 3 (CTC) 3 (PP) blocks and given diets containing CTC at concentrations of 0, 10 and 20 mg/kg.

3. The body weight gain was lower when the birds were treated with CTC. However, the high dose of PP tended to reduce the effect of CTC.

4. The abdominal fat content, plasma triglyceride concentration and liver weight were increased by CTC and reduced by PP.

5. Muscle and liver thiobarbituric acid reactive substance (TBARS) were elevated by CTC and these effects were reduced by PP. Plasma CTC concentration was increased by dietary CTC treatment and decreased by PP.

6. In conclusion, our results indicate that PP can minimise growth inhibition, hyperlipidemia and oxidative stress induced by CTC treatment in broiler chickens.