

Effect of Intraperitoneal Administration of Ghrelin on Serum Glucose and Insulin Levels in Turkey

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Abstract : The aim of the present study was investigation on the effect of intraperipheral (IP) injection of ghrelin on serum insulin and glucose levels in native turkey. Seventy-two 28 day (d)-old native turkey were assigned into three treatments and four replicate for 40 days experimental rearing period: group 1, intact without any injection, group 2, injected 50 ng ghrelin/kg body weight (BW), and group 3, injected 100 ng ghrelin/kg BW. Intraperitoneal injection of rat ghrelin was conducted on d 28 and before the onset of the experimental rearing period. Blood samples were taken 12 hr after injection and 40 days after injection. The result showed glucose concentrations have been affected by administered ghrelin and significant between groups ($P < 0.01$). Injection of ghrelin at G 100 increased glucose level of serum in 12 hr after injection and 40 days after injection (276.6 and 260.0 mg/dl, respectively). Also, by increasing the dose of injected ghrelin, insulin levels than the control group showed an increase ($P < 0.001$). This study suggests roles of ghrelin in serum biochemical regulation may show a different effect of ghrelin on blood parameters in avian species.

Keywords : ghrelin injection, insulin, glucose, turkey

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