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Research Article

Peripheral Administration of RF9 Does Not Affect Hypothalamic-Pituitary-Gonadal Axis in Normal Fed Adult Male Macaque

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ABSTRACT

Stress represses hypothalamic-pituitary-gonadal axis (HPG-axis) but RF9, a synthetic peptide, rescues such repression. To assess the role of RF9 in regulating HPG-axis under normal physiological conditions in higher primates, RF9 was administered to intact adult male rhesus monkeys and response of the HPG-axis was examined by measuring plasma testosterone as an end parameter of the axis. Control group (n=4) received normal saline whereas the treated group (n=4) received RF9. On the first day of experiment, four bolus injections of normal saline (1ml/animal) were administered intravenously at 2-hr interval to the control monkeys. Similarly, on the second day of experiment, treated group received four iv bolus injections of RF9 (0.1mg/kg BW) at 2-hr interval. Serial blood samples were collected at 20 min interval during a 6-hr period which started just after first saline/RF9 injection. Plasma testosterone levels were measured by using a specific EIA. Overall means of plasma testosterone levels and plasma testosterone area under curve (AUC) and overall mean testosterone and mean testosterone AUC in short time windows following each injection of RF9 and saline were comparable between the groups. Our results demonstrate that RF9 has no role in regulating HPG-axis under normal physiological conditions in adult male monkeys.

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