Short Communication

Effect of hydro-alcoholic extract of red grape seed on antidiuretic hormone secretion in male rats

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Abstract

Background and Objective: Antidiuretic hormone (ADH) is released from pituitary gland in response to stimulation of plasma osmolalrity. ADH affects on the kidney and regulates the water and electrolytes. This study was done to evaluate the effect of hydro-alcoholic extract of red grape seed on antidiuretic hormone secretion in male rats.

Methods: In this experimental study, 30 adult male Wister rats were allocated into 5 groups. Animals in control group were received 1 mL of water, orally. Animals in positive control group were received 12mg/kg/bw of Furosemide, intraperitonally. In experimental groups, one hour after injection of 12mg/kg/bw of Furosemide, animals were received the red grape seed hydro-alcoholic extract, orally, in doses of 100, 200 and 400 mg/kg/bw for 4 days, respectively. Serum level of ADH was measeared using ELISA method.

Results: Serum level of ADH in groups of 100, 200 and 400 mg/kg/bw doses of grape seed extract were (21±2.5, 19±1.24 and 14±2 pmol/L, respectively) which was significantly less than control group (40.5±3 pmol/L) ($P<0.05$).

Conclusion: The oral consumption of hydro-alcoholoc extract of red grape seed reduces the antidiuretic hormone secretion in male rats.

Keywords: Red grape seed, Antidiuretic hormone, Rat

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