

An investigation of the effect of purslane(*Portulacaoleracea* L .) extract on body resistance toward thirst by examining urine and blood variables in laboratory mice

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Abstract

Objective: *Portulacaoleracea* L. (PO) is abundantly found in Iran and is used in both nutritional and traditional medicine. Delaying thirst is one of the uses of the medicinal product of this plant which has been emphasized in Iranian traditional medicine though it was not proven scientifically. Accordingly, the present study aimed to investigate the effect of PO product on thirst.

Materials and methods: In this research, two main Set of experiments were considered: acute water deprivation group and chronic water restriction group. The urine parameters analyzed were osmolality, and sodium, and potassium concentration, and blood parameters evaluated included blood urea nitrogen, creatinine, osmolality, and sodium, and potassium concentration. The PO dosages were 50, 100 and 200 mg/kg.

Results: The findings showed that the effects of PO 100 and 200 (mg/kg) on blood and urine parameters were greater than that of PO 50 mg/kg, but there were no significant differences between them.

Conclusion: In general, these findings indicate that PO extract can play an important role in reducing thirst symptoms most likely by affecting intra- and extra-cellular environments. Also, it is recommended to study the beneficial effects of this plant on diseases that lead to hypokalemia or blood potassium depletion.

Keywords: Ethnobotany; Iranian traditional medicine; *Portulacaoleracea* L.; Thirst