عنوان مقاله:

Effect of Purslane on Kidney Failure Following Copper Toxicity in a Rat Model

محل انتشار:

مجله علوم پزشکی ایران, دوره 6, شماره 1 (سال: 1396)

تعداد صفحات اصل مقاله: 8

نویسندگان:

Abdollah Ramzani Ghara - *Department of Plant Biology, University of Jiroft, Jiroft, Kerman*

Fereshteh Ezzati Ghadi - *Department of Plant Biology, University of Jiroft, Jiroft, Kerman*

خلاصه مقاله:

Background and purpose: Copper (Cu) is an essential trace element. The toxic level of copper can catalyze the formation of free radicals which cause various diseases including kidney failure. The main aim of this study was to evaluate the effects of purslane on kidney failure due to copper toxicity in rat model. Materials and Methods: Twenty-eight male Wistar rats were divided equally and randomly into four groups. Group I was control group, while in group II, copper sulphate was administrated orally in dose of ۲۰۰ mg/kg body weight every day for one month. In group III, on the other hand, purslane was orally given in a dose of ۴۰۰ mg/kg body weight per day for one month. Group IV received combined treatment of copper sulphate and pursalne as described in groups II and III. Blood urea nitrogen (BUN) and serum creatinine was then measured. The kidney tissues were subject to histopathological study. Results: The results showed that serum BUN and creatinine were increased in the copper-treated rat which were ۵۲/۲۰± ۴/۹۱ and ۰/۵۶± ۰/۰۶, respectively. Purslane administration also decreased the elevated level of creatinine and BUN in rats which received toxic levels of copper (۰/۴۸± ۰/۰۳ and ۴۴/۸۰± ۵/۷, respectively). Conclusion: The present study revealed that purslane improved some kidney function parameters due to its antioxidant and anti-inflammatory properties.

کلمات کلیدی:

Blood urea nitrogen, Copper toxicity, Purslane, Creatinine