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# PROTECTIVE EFFECT OF HYDROALCOHOLIC EXTRACT OF PORTULACA OLERACEA AGAINST CADMIUM INDUCED NEPHROTOXICITY

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The recent investigations showed that *Portulaca Oleracea* (*P. oleracea*) has antioxidant with anti-inflammatory effects. This study was carried out to investigate the effects of methanolic extract of *P. oleracea* against cadmium-induced nephrotoxicity in rats. Male albino Wistar rats were randomly divided into nine experimental groups, as follows: Group 1 as a negative control group were treated with normal saline; group 2 received single dose of 2 mg/kg cadmium for two consecutive weeks; groups 3-5 received a methanolic extract of *P. oleracea* in doses of 400, 600 and 800 mg/kg and 2 mg/kg cadmium, respectively for two consecutive weeks. All administrations were performed intraperitoneally. Blood urea nitrogen (BUN) and serum creatinine (Scr), were used to assess nephrotoxicity. Furthermore, the histopathological observations were used to evaluate the changes of tissue. The findings showed that the administration of cadmium leads to a significant increase in the levels of BUN and Scr in comparison to normal saline group ( $p < 0.05$ ). Treated group by the extract of *P. oleracea* significantly altered these changes to almost normal ( $P < 0.05$ ). In addition, these findings were supported and confirmed by histological examination. These results suggest that *P. oleracea* extract may be useful in cadmium-induced renal toxicity and might serve as a novel preservative to limit renal injury.

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