

عنوان مقاله:

Protective and Curative Effects of Nigella sativa Extract and Vitamin E Against Cisplatin-Induced Nephrotoxicity in Rats

محل انتشار:

مجله علمی پژوهشی دانشگاه علوم پزشکی زنجان, دوره 25, شماره 110 (سال: 1396)

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خلاصه مقاله:

Background and Objective: Cisplatin is one of the most important chemotherapy agents but its clinical use has been restricted due to nephrotoxicity. Nigella sativa (N.sativa) is an annual plant with many pharmacologic properties that has been used as a natural remedy for a number of illnesses. In the present study preventive and preventive-treatment effects of N.sativa extract was evaluated against nephrotoxicity induced by cisplatin in rats. **Materials and Methods:** In this study, the effects of N.sativa extract and vitamin E administration in rats treated with cisplatin was investigated using serum biochemical parameters including serum creatinine, albumin, osmolarity, glucose and kidney index. **Results:** The results indicated significant changes in serum concentrations of creatinine, albumin, osmolarity and kidney index in the cisplatin group. Serum creatinine concentration in preventive and preventive-treatment vitamin E and preventive-treatment N.sativa (100, 200 mg/kg) groups was significantly lower than the cisplatin group. Serum osmolarity in preventive vitamin E, preventive and preventive-treatment N.sativa (100, 200 mg/kg) groups showed a significant decrease in comparison to the cisplatin group. Serum albumin concentrations in preventive-treatment vitamin E group were significantly higher than the cisplatin group. Kidney index in preventive and preventive-treatment vitamin E and preventive-treatment N.sativa (100 mg/kg) groups showed a significant decrease compared with the cisplatin group. **Conclusion:** The current study suggests that N. sativa extract and vitamin E partially improved some

serum and urine biochemical parameters and kidney index in cisplatin-induced nephrotoxicity in rats. However more .studies are needed to determine the effects of N.sativa on cisplatin-induced kidney toxicity

کلمات کلیدی:

Keywords: Cisplatin, Nigella sativa, Vitamin E, Nephrotoxicity

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