



## Chemico-Biological Interactions

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## D-pinitol attenuates cisplatin-induced nephrotoxicity in rats: Impact on pro-inflammatory cytokines

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## Abstract

Cisplatin has been widely used as a first-line agent against various forms of solid cancers. However, nephrotoxicity is the major limiting factor for its clinical use. Several clinical and pre-clinical studies have suggested different strategies for the reduction of cisplatin-induced nephrotoxicity. The present study was conducted to investigate the efficacy of D-Pinitol, against cisplatin-induced nephrotoxicity in Swiss albino mice. A single intraperitoneal injection of cisplatin (20 mg/kg) was used to induce nephrotoxicity in mice. Administration of cisplatin in mice is linked with elevated oxidative stress, imbalanced biochemical parameters, apoptosis and stimulation of mitogen-activated protein kinase (MAPK) pathway. D-Pinitol is a member of the flavonoid family and a chief constituent of *Sutherlandia frutescense*. It was administered with saline water (10, 20, 40 mg/kg, p.o.) for seven consecutive days after a single dose of cisplatin. At the end of

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