



Ameliorative effects of Gentisic acid on carboplatin induced hematological toxicities in Wistar Rats

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Abstract : Hematological toxicity is a frequent and severe adverse effect of carboplatin chemotherapy, limiting its clinical use despite being one of the most potent anticancer agents. The present study was designed to evaluate the protective effects of a naturally occurring plant phenolic acids i.e. gentisic acid (2,5 dihydroxybenzoic acid) against carboplatin induced hematological toxicities in wistar rats. Exposure to carboplatin at a dose of 35 mg/kg caused significant decrease in hematological parameters of blood such as red blood cells, total leucocytes, platelets, neutrophils, basophils, lymphocytes and monocytes counts whereas increase in eosiphill counts rat blood indicating severe pancytopenia. Administration of gentisic acid at 10, 30 and 100 for 14 days resulted in a significant amelioration of altered blood parameters in a dose dependent manner indicating its potential as a protective agent for the prevention and amelioration of caboplatin induced hematological toxicities.

Key words : Gentisic acid; 2,5-Dihydroxybenzoic acid; Hematological toxicities; Carboplatin; Cancer chemotherapy; myelosuppression.

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