Abstract

Dragon’s blood root (Jatropha dioica) underwent a phytochemical screening showing the presence of flavonoids and terpenes responsible for the antioxidant potential observed in DPPH model for the decoction, aqueous and methanolic extracts. The chemoprotective effect of the root decoction was evaluated in liver, kidney and bone marrow cells of mice using the comet assay. Mutagens were administered via IP: cyclophosphamide (CCF) 50 mg/kg, daunorubicin (DAU) 10 mg/kg, and metilmethanesulfonate (MMS) 40 mg/kg, were co-administered with three doses of decoction 3.72 ml/kg, 10.71 ml/kg, and 21.42 ml/kg orally. Animals were sacrificed at 3, 9, 15 and 21 h after inoculation. The chemoprotective effect decreased DNA breaks at 3 hours in all organs, and longer against CCF and DAU, this effect probably being related to the antioxidant capacity of the decoction.

Keywords

Chemoprotection, antioxidants, dragon’s blood, comet assay, Jatropha dioica.