EVALUATION OF CARDIOPROTECTIVE EFFECT OF DAIDZEIN IN 5-FLUOROURACIL-INDUCED CARDIOTOXICITY IN WISTAR RATS

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ABSTRACT

The aim of the study was to determine the cardioprotective effect of daidzein in 5-fluorouracil-induced cardiotoxicity. The animals of the standard group were treated with carvedilol 10 mg kg^{-1}, and DDZ5 and DDZ10 groups were treated with daidzein for 8 days at doses of 5 mg kg^{-1} and 10 mg kg^{-1}, respectively, with induction of disease on day 5 with 5-fluorouracil in all groups. The results were determined by evaluating biochemical parameters such as CK-MB, LDH, cTnI, GSH, MDA, MPO and total cholesterol, as well as histopathological study. It was found that both daidzein 5 mg kg^{-1} and daidzein 10 mg kg^{-1} considerably ($p<0.01$) decreased the animal's levels of MDA, MPO, LDH and CKMB compared to the negative control group. The level of GSH in DDZ5 and DDZ10 animals was significantly ($p<0.01$) higher than negative control animals. It can be concluded from this study that daidzein holds significant potential to prevent as well as manage the cardiotoxicity caused by 5-FU.