

Prevention of fall in platelet count by *Carica Papaya* leaf juice in Carboplatin induced thrombocytopaenia in mice

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Abstract

Background : There are no effective methods to treat thrombocytopenia once it occurs. Transfusions, growth factor injections and bone marrow transplant have their limitations. So there is increased need for research of drugs that could prevent and treat thrombocytopenia. The objective the study to determine the effect of different doses of male and female papaya leaf juice on prevention of carboplatin induced thrombocytopenia in mice.

Methods : A total of 55 Swiss albino mice were randomly divided into five groups (C, M10, M5, F10 and F5). Thrombocytopaenia was induced in all groups by a single intraperitoneal injection of carboplatin. Male papaya leaf juice was given to prevent of thrombocytopaenia to groups M10 and M5 and female papaya leaf juice was given to F10 and F5. On days 0, 7, 14 and 21 blood samples were collected by cardiac puncture for platelet count. Significance of difference was calculated by one way ANOVA.

Results : After carboplatin injection, platelet count decreased. *Papaya leaf juice prevented fall in platelet count throughout the study period* with p-value < 0.001. Difference between male and female papaya leaf juice was not significant while higher dose (10 ml/kg) produced significantly higher responses as compared to low dose (5 ml/kg).

Conclusion : *Papaya leaf juice prevents reversible thrombocytopaenia induced by carboplatin in a dose dependent manner.* There is no difference between male and female plants in this respect.