Effects of Morinda citrifolia on early stage of leukaemia in rats

ABSTRACT

We have studied the effects of Morinda citrifolia on haemogram parameters in rats with early stage of leukaemia. A total of 32 male Sprague Dawley rats were divided into four groups (n=8) namely control, Morinda citrifolia (MC), N-methyl-N-nitrosourea (MNU) and MC+MNU group. Leukaemia induced rats were provided with died M. citrifolia fruits incorporated into rat diet at a dose of 3000 mg/kg body weight were given daily to the MC and MC+MNU groups. Results showed there were no significant differences in the leukon and erythron parameters in all groups. Although lymphocytosis was not observed in the MNU and MC+MNU groups, examination of the blood morphology showed a typical morphology of leukaemic cell. Seventy-five and sixty percent of rats in the MNU and MC+MNU groups, respectively, had leukaemia. Our results indicate that examination of blood smear provides an important tool for diagnosis of early stage of leukaemia and daily supplementation of M. citrifolia at the dose of 3000 mg/kg reduced the incidence of early stage of leukaemia in rats.

Keyword: Leukaemia; Rats; Morinda citrifolia