

Anti-tumor effect of acetone extract of *Madhuca longifolia* against Ehrlich Ascites Carcinoma (EAC) in mice

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Abstract

Present study was performed to explore the protective effect of acetone extract of *Madhuca longifolia* leaves (*AEML*) against Ehrlich Ascites Carcinoma (EAC) in mice. The activity was assessed using mean survival time (MST), tumor volume, tumor weight, tumor cell count, body weight, haematological studies and *In-vitro* cytotoxicity. Results found that oral administration of *AEML* increased the mean survival time. tumor volume, tumor weight, body weight and tumor cell count were also significantly reduced. haematological parameters including protein and PCV, which were altered by tumor inoculation, were restored. The effects of *AEML* was comparable with standard drug 5-Flourourasil.

Keywords Anti-tumor activity; Ehrlich Ascites Carcinoma; EAC; *Madhuca longifolia*

Introduction

It is well established fact that plants have been a useful source of clinically relevant antitumor 69 compounds (Kamuhabwa et al., 2000). Indeed there have been worldwide efforts to discover new anticancer agents from plants. There are different approaches for the selection of plants that may contain new biologically active compounds (Cordell *et al.* 1991). One of the approaches used is the ethnomedical data approach, in which the selection of a plant is based on the prior information on the folk medicinal use of the plant. It is generally known that ethnomedical data provides substantially increased chance of finding active plants relative to random approach (Chapuis *et al.*, 1988). However, as for cancer, the disease is complicated and heterogeneous, which makes it difficult to be well diagnosed, especially by traditional healers. The ethnomedical information obtained for a plant extract that is used to treat cancer might therefore not be reliable (Kamuhabwa *et al.*, 2000). Traditional Indian and Chinese medicinal herbs have been used in the treatment of different diseases in the country for centuries. There have been claims that some traditional healers can successfully treat cancer using herbal drugs. Indeed, some traditional healers who were interviewed recently in the