

ABSTRACT

A full recipe for a well-known Thai folk remedy consists of parts of five species of plants; i.e. Ludwigia hyssopifolia (G.Don) Exell (whole parts), Polygala chinensis Linn (whole parts), Clinacanthus siamensis Brem (stems and leaves), Canna indica Linn (rhizomes), and Smilax corbularia Kunth (rhizomes) : five species of animals, i.e. Manis javanica Desmarest (scales), Hystrix brachyura Linn (spines), Dasyatis spp. (spines), Damonia subtrijuga Boulenger (carapaces), and Trionyx cartilagineus Boulenger (sternums): an artefact, a small piece of bamboo bucket generally called "Kru". This prescription has been used in cancer patients in Thailand and it is claimed to be more effective in the treatment of mammary cancer than other types of cancer. A preceding preliminary study of solely the extract from the plant components has shown interesting antitumor activity in the mammary tumorous system. Therefore, the full recipe of this remedy was considered in this study.

The evaluations for anticancer activity of the water extract from this recipe were carried out in two different systems. On one hand, against the in vitro KB-cytotoxic system, the extract exhibited more than 100 mcg/ml of ED-50. Consequently, it was considered not to possess cytotoxic activity according to the standard criteria of the National Cancer Institute of the U.S.A. which set at $ED-50 \leq 30$ mcg/ml. On the other hand, against the in vivo 7,12-DMBA-induced mammary tumorous system, daily feeding of the extract at a dose of 1,500 mg/kg could significantly inhibit tumor growth in the early 4-week period, prolong survival time, and increase survival rate of

tumor bearing rats. The extract demonstrated relatively low toxicity from a daily oral dose of 1,500 mg/kg for six months or up to single oral dose of 15,000 mg/kg.

Further study of the mechanism of therapeutic action of this folk remedy should be made to provide another promising anti-cancer agent with low toxicity.