

**UNIVERSITI TEKNOLOGI MARA**

**EFFECT OF METHANOL TUBER EXTRACT OF  
*MYMERCODIA PLATYTYREA* ON SPRAGUE-  
DAWLEY RATS**

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## ABSTRACT

The tuber of *Mymercodia platytyrea* or known as the Ant-Nest plant has been used traditionally to treat cancer. The decoction of the dried tuber has been used as a remedy for many diseases from minor ailments such as nosebleed, cough to major ailments such as cancer, stroke, coronary heart problem, tuberculosis, hyperuricemia, lactogagum and cancer. This study was aimed to determine the effects of the methanolic extract of *M. platytyrea* tuber on female Sprague Dawley rats by observing the behavioural and physical changes of the rats and analysing the histology of the major organs of the rats after being treated with methanol extract of *M. platytyrea* tuber for 14 days. The results showed that with 14 days of treatment with *M. platytyrea* methanol tuber extract (MPMTE), the rats did not show any signs and symptoms of toxicity. On day 15, the rats were sacrificed and upon gross necropsy, there were no abnormal observations on the major organs compared to control. Hence the result obtained on the relative organ weight of the liver and kidney showed no difference between the treated groups and the control group. From the histological examination of the liver and kidney (H&E staining), there were no difference between the control and treated organs after the rats were given (p.o.) daily doses of MPMTE (100-400 mg/kg) for 14 days. There were no macroscopic changes in their organs, with no fibrous consistency, lesions, thrombus and atrophy on the edge of the organs, preserving aspects in relation to structure, texture and shape of treated group when compared to control group. In conclusion, sub-acute treatment of MPMTE (100-400 mg/kg, p.o.) did not cause any toxicity to the female Sprague-Dawley rats.

## CHAPTER 1

### INTRODUCTION

#### 1.1 Background of study

A handbook of Traditional and Complementary Medicine Programme in Malaysia stated that traditional medicine (TM) is an ancient medical practice which existed a long time ago in human societies before the modern application is used. It was reported that some Asian countries, almost 80% of the population depended on the herbal treatments for their primary health care purposes. The present study from (Patel et al., 2010) concluded that methanolic extract of *Rubiocordifolia* Linn (Rubiaceae) possesses a significant analgesic and anti-inflammatory effect in rats. The plant of interest in this study is *Mymercodia platytyrea* or known as the Ant-Nest plant. The Ant-Nest plants have been used traditionally to treat cancer patients long, long time ago and have shown to have potential as an alternative for cancer treatment in the modern society (Hamsar & Mizaton, 2012).