

UNIVERSITI TEKNOLOGI MARA

**STUDY OF THE EFFECTS OF *Myrmecodia*
Platytyrea EXTRACT ON THE IMMUNE STATUS
IN *Wistar* RATS**

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TABLE OF CONTENTS

	Page
TITLE PAGE	
ACKNOWLEDGEMENTS	ii
TABLE OF CONTENTS	iii
LIST OF TABLES, FIGURES AND PLATES	v
LIST OF ABBREVIATION	vi
ABSTRACT	viii
CHAPTER ONE (INTRODUCTION)	
1.2 Background	1
1.2 Objective	
1.2.1 General objective	2
1.2.2 Specific objective	2
1.3 Problem statements	3
1.4 Significance of study	3
1.5 Hypothesis to be tested	4
CHAPTER TWO (LITERATURE REVIEW)	
2.1 Characteristics of ant plants	5
2.1.1 <i>Myrmecodia pendens</i> and <i>Myrmecodia tuberosa</i> species	6
2.1.2 <i>Hydnophytum formicarum jack</i> species	6
2.1.3 <i>Myrmecodia platytyrea</i> species	7
2.2 The symbiotic relationship between ant plant and ant colonies.	9
2.3 Indications of ant plants as traditional remedies	9
2.4 The active biochemical compounds	10

2.5	Immune system-regulating cells	12
2.6	Immunomodulatory agents and immunomodulation	15
2.7	Previous studies on Ant Plants extracts	
2.7.1	<i>Myrmecodia pendens</i> and <i>Myrmecodia tuberosa</i>	16
2.7.2	<i>Hydnophytum formicarum</i> jack	17
CHAPTER THREE (MATERIAL AND METHOD)		
3.1	Materials	19
3.2	Plant material and extraction	20
3.3	Experimental animal	20
3.4	Experimental designs	21
3.5	Parameters	21
3.6	Lymphocytes subpopulation assay by flow cytometry	22
3.7	Statistical analysis	23
CHAPTER FOUR (RESULTS)		
4.1	Percentages of CD3 Cells (T Lymphocytes)	24
4.2	Percentages of CD4 Cells (T Helper Cells)	25
4.3	Percentages of CD8 Cells (T Cytotoxic Cells)	26
4.4	Percentages of CD4/CD8 Ratios (T Lymphocytes Ratios)	27
4.5	Percentages of CD4/CD8 Ratio (T Lymphocytes)	28
4.6	Percentages of CD16a Cells (NK cells)	29
CHAPTER FIVE (DISCUSSION)		30
CHAPTER SIX (CONCLUSION)		34
BIBLIOGRAPY		36

ABSTRACT

Ant plants or Sarang Semut tubers are alternative medicinal plants which have been increasingly used traditionally for a broad range of therapeutic values. The purpose of this study was to investigate the potency of *Myrmecodia platytyrea* species of ant plants, as immunomodulator by evaluating its effect on lymphocytes subpopulations. In this study, group I was designed as vehicle control while rats in each group II, III and IV, were administered with different dose of extract solution for 14 days. Methanol extract of *Myrmecodia platytyrea* was made to solution with concentrations of 100, 200 and 400 mg/kg by adding 0.9% normal saline. Lymphocytes subpopulations analysis was carried out by using the flow cytometry analysis. The study demonstrated that *Myrmecodia platytyrea* tuber increased the percentages of lymphocytes subpopulations as compared to the vehicle control, with the higher immunostimulatory effects have shown by group II (100 mg/kg), followed by group III (200 mg/kg), and the lower effects have exerted by group IV (400 mg/kg). Overall, the results showed that *Myrmecodia platytyrea* tuber has potential to be developed as immunomodulatory agent.

Keywords: *Myrmecodia platytyrea*, flow cytometry, lymphocytes subpopulation.