

**PHYTOCHEMICAL SCREENING AND ANTIMICROBIAL
ACTIVITIES OF *Strobilanthes crispus* AGAINST
SELECTED BACTERIA**

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ABSTRACT

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Strobilanthes crispus also known as “Pokok pecah kaca” is a local herbs plant belong to family Acanthaceae. Synthetic drug had given the drawback and herbs plant can replaced the drug in term of medication. The leaves were selected because of its variety benefits in traditional folk medicine to treat diabetes and anticancer treatment. This study was done to determine the antimicrobial activity against Gram Positive bacteria which were *Staphylococcus aureus* and *Bacillus subtilis*, and Gram Negative bacteria which were *Klebsiella pneumoniae* and *Pseudomonas aeruginosa*. This study also wants to investigate the phytochemical compound that present in leaves of *S.crispus*. The minimal inhibitory concentration (MIC) also been carried out. The antimicrobial activity of *S.crispus* leaves extract against selected bacteria was tested at different concentrations using disc diffusion method. Identification of the phytochemical compound was determined through phytochemical screening. In methanol extract, the highest antimicrobial activities were at 400mg/ml concentration against *P.aeruginosa* with 12.67 mm of inhibition zone while, the lowest was against *K.pneumoniae* with 8.66 mm of inhibition zone at 200mg/ml concentration. The leaves extract of *S.crispus* in hexane solvent give no inhibition zone at all concentration in this study. The phytochemical screening showed positive result for the presence of flavonoid and saponins in both leaves extract. The MIC for methanol extract was determined at 25mg/ml against *P.aeruginosa*. In conclusion, *S.crispus* leaves extract showed the best potential to inhibit *P.aeruginosa* at 400mg/ml concentration. Further investigation should be conducted on other species of bacteria using other part of this plant.

TABLE OF CONTENTS

	PAGE
ACKNOWLEDGEMENTS	iii
TABLE OF CONTENTS	iv
LIST OF TABLES	vi
LIST OF FIGURES	vii
LIST OF ABBREVIATIONS	ix
ABSTRACT	x
ABSTRAK	xi
CHAPTER 1: INTRODUCTION	
1.1 Background Study	1
1.2 Problem Statements	3
1.3 Significance of the Study	4
1.4 Objectives of the Study	6
CHAPTER 2: LITERATURE REVIEW	
2.1 <i>Strobilanthes crispus</i>	7
2.2 Extraction	8
2.2.1 Solvent extraction	9
2.2.2 Properties of Methanol	10
2.3 Antimicrobial Activity	11
2.3.1 Bacteria	11
2.3.2 Properties of Bacteria	12
2.3.3 Gram positive Bacteria	13
2.3.3.1 <i>Staphylococcus aureus</i>	13
2.3.3.2 <i>Bacillus subtilis</i>	14
2.3.4 Gram-negative Bacteria	14
2.3.4.1 <i>Klebsiella pneumoniae</i>	14
2.3.4.2 <i>Pseudomonas aeruginosa</i>	15
2.4 Phytochemical Screening	15
2.4.1 Function of different class of phytochemical	16
2.4.2 Standard method of phytochemical screening	17
CHAPTER 3: METHODOLOGY	
3.1 Materials	18
3.1.1 Raw Materials	18
3.1.2 Chemicals	18
3.1.3 Apparatus	18

3.2	Methods	19
3.2.1	Collection of sample	19
3.2.2	Extraction of plant material	19
3.2.3	Media preparation	20
3.2.4	Phytochemical screening of <i>S.crispus</i> leaves extract	20
3.2.4.1	Detection of alkaloids (Mayer's test)	20
3.2.4.2	Detection of flavonoids (Sodium hydroxide test)	20
3.2.4.3	Detection of tannins (Ferric chloride test)	20
3.2.4.4	Detection of terpenoids (Sulphuric acid test)	21
3.2.4.5	Detection of saponin (Foam test)	21
3.2.4.4	Detection of glycosides (Modified bortrager's test)	21
3.2.5	Antimicrobial susceptibility test	22
3.2.5.1	Preparation of inoculum	22
3.2.5.1.1	Growth method	22
3.2.5.2	Disc diffusion method	22
3.2.5.3	Minimum Inhibition Concentration (MIC)	23
3.2.6	Statistical analysis	24

CHAPTER 4: RESULTS AND DISCUSSION

4.1	Extraction of <i>Strobilanthes crispus</i>	25
4.2	The Phytochemical Screening	26
4.3	Type of Antimicrobial Susceptibility Test	29
4.3.1	Disc diffusion	29
4.3.2	Minimum Inhibitory Concentration (MIC)	40
4.4	Statistical Analysis	44

CHAPTER 5: CONCLUSION AND RECOMMENDATIONS

CITED REFERENCES	47
APPENDICES	52
CURRICULUM VITAE	60

LIST OF TABLES

TABLE	TITLE	PAGE
4.1	The percentage yield of solvent extract	26
4.2	Phytochemical screening of the <i>S.crispus</i> leaves extract	27
4.3	Inhibition zones of methanol and hexane extract concentration	31
4.4	The different bacteria at each concentration toward inhibition zone	36
4.5	MIC of methanol extract against for <i>B.subtilis</i> , <i>S.aureus</i> , <i>P.aeruginosa</i> and <i>K. pneumoniae</i>	41