Research Article

Antibacterial Activity and Phytochemical Screening of *Baugainvillea spectabilis*

A. Ravi Kumar and Krishna Chaitanya M

[1]Department of Pharmacognosy, Bapatla College of Pharmacy, Bapatla- 522 101, Andhra Pradesh, India.

ABSTRACT

Baugainvillea spectabilis is used as Antimicrobial agent anti-inflammatory agent..The Antibacterial activity was carried out using Chloroform and Ethylacetate Extract by Agar Well Diffussion Method .Phytochemical study was carried out to find the presence of Carbohydrates Glycosides and Alkaloids Zone of Inhibition was observed and it is concluded that the extracts of the *B.spectabilis* inhibit growth of bacteria

Keywords: Phytochemical, Antimicrobial, *Baugainvillea spectabilis*.

INTRODUCTION

The plant *Baugainvillea spectabilis* as per literature review posses medicinal uses in curing diseases. The plant *Baugainvillea spectabilis* is found throught India .

MATERIALS AND METHOD

EXPERIMENTAL

The different parts of the plant *Baugainvillea spectabilis* was collected was authentified and preserved . It was then dried under shade and then the crude dried powder made obtained was subjected to extraction process .

Extraction

The shade dried plant was extracted using chloroform and later by Ethylacetate by continious hot percolation method. The execess of solvent was removed by evaporation under reduced pressure and then stored in a dessicator . The extract was subjected to preliminary phytochemical studies and antibacterial activity evaluation

Antibacterial activity evaluation

The Antibacterial acitivity of the plant was conducted in vitro using Agar well diffusion Method Muller Hilton Agar Medium was Prepared and it was inoculated with bacterial cultures *Proteus vulgaris S. aureus E.Coli and K. pneumonia* Wells are Made in Each Agar Plate and the Plant extracts were tested in the concentrationl of 100mg/100ml The test extracts were prepared by dissolving the plant material in dimethyl sulphoxide (DMSO) . The standard used is Levofloxacin in the Concentration of 10mg/100ml . Inhibition of Microbial growth was determined by observing the zone of inhibition both in test as well as the standard .

RESULTS AND DISCUSSION

Phytochemical screening of the plant *Baugainvillea spectabilis* confirms the presence of Carbohydrates Glycosides and Alkaloids as its principle chemical constituents .The zone of inhibition was clearly observed in the Petri dishes cultured with *Proteus vulgaris S.aureus E.Coli and K pneumonia* both in test and standard.

Table 1: Phytochemical Screening of Plant Extracts

Chemical Constituents	Chloroform Extract of Plant	Ethylacetate Extract of Plant
Carbohydrates	+	+
Glycosides	+	+
Alkaloids	+	+

+ Presence

Table 2: Antibacterial activity of Plant Extracts

Organism	Zone of Inhibition (mm)			
	Chloroform Plant Extract		Ethylacetate Plant Extract	
	Test	Standard	Test	Standard
P.vulgaris	33	37	24	24
S.aureus	35	33	25	34
E.Coli	37	33	26	31
K.Pneumonia	33	35	26	31

The Choloroform extract showed comparable antibacterial activity were as ethylacetate extract showed moderate antibacterial activity . The observed zone of inhibition were 33 35 37 and 33 mm in the test sample of chloroform plant extract of organism *P vulgaris S. aureus E coli K pneumonia* respectively . Similarly ethylacetate plant extract showed a zone of inhibition of 24 25 26 and 26 mm for organisms *P vulgaris S aureus E coli K pneumonia* Similarly Ethylacetate plant extract showed zone of inhibition of 25 26 24 and 27 mm for organisms *P. vularis S aureus E coli K pneumonia* respectively.The plant shows the presence of Carbohydrates Glycosides and Alkaloids tested in the extracts.

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