

“A Study to Evaluate the Antagonistic Potential of Extract of Leaves of Indian Kadam Anthocephaluscadamba”

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ABSTRACT

The antagonistic activity of the various extracts of the leaves of Anthocephaluscadamba has been studied by disc diffusion method [Kirby-Bauer] method. Significant antibacterial and antifungal activity was shown by in aqueous medium.

Keywords: Antagonistic, Anthocephaluscadamba, Disc diffusion method.

Experimental Section

The leaves of Anthocephaluscadamba were collected in the early morning from Raja Balwant Singh College and Paliwal Park, Agra premises and were authenticated by Dr. Jagriti Sharma, Department of Biotechnology, Raja Balwant Singh College, Agra.

Preparation of Extracts

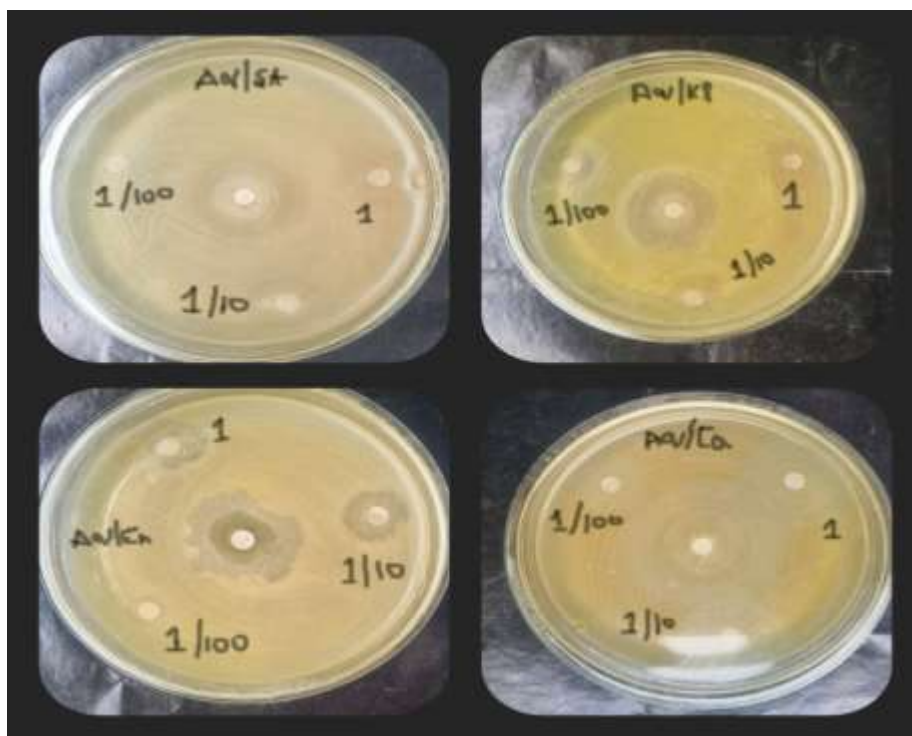
30 gram of dried powder of Anthocephaluscadambaleaves was placed in a porous cellulose thimble in soxhlet apparatus. The thimble was then placed in an extraction chamber, above a collection flask containing the 500 ml distilled water. The flask was heated and the solvent was allowed to evaporate. Temperature was adjusted according to boiling temperature of distilled water (100°C). Extraction process lasted 24-48 hours and the flask containing the solvent and extract were removed. The solvent in the flask was then evaporated and weighed and store at 4°C for further use.

I. INTRODUCTION

Anthocephaluscadamba (Kadam) (Rubiaceae Family) is widely distributed throughout the greater part of India, especially at South Asia and Southeast Asia. Traditionally warm aqueous extract of A.cadamba leaves have been used to reduce the pain, swelling and for cleansing and better wound healing purposes. Recently, A.cadamba has been reported to possess wound healing, antioxidant, antimalarial andhepato-protective activity. The present study was undertaken to screen the antibacterial activity of the leaves of Anthocephaluscadamba.

Antimicrobial activity of Anthocephaluscadamba leaves extracts

No.	Organism	Susceptibility		Zone of Inhibition (mm) (Diameter)		
			Reference	(1)	(1/10)	(1/100)
1.	Candida albicans	Sensitive	22.0	12	11	07.1
2.	Enterococcusf aec.	Sensitive	17.0	11	10	8
3.	Klebsiellapne u.	Sensitive	12.0	9	7	6
4.	S. aureus	Sensitive	13.0	9	8.2	7.1



II. RESULTS

The result shows that Anthocephalus cadamba leaves extract showed antimicrobial activity against the organisms *Candida albicans*, *Enterococcus faecium*, *Klebsiella pneumoniae* and *Staphylococcus aureus* and the zone of inhibition was comparable with the standard drug.

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