



Phytochemical analysis and antimicrobial properties of leaf extract of *Pithecellobium dulce* in different solvents

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Abstract : *Pithecellobium dulce* is a wild tree belonging to family Fabaceae. The present study was carried out to screen the phyto compounds present in the leaf of the plant. The study also aimed to analyze the antimicrobial properties of the leaf extract against the microbes *Staphylococcus aureus*, *Escherichia coli*, *Pseudomonas aeruginosa*, *Candida albicans* and *Aspergillus flavus*. The leaf extract was prepared in Benzene, Chloroform, Acetone and Distilled water, in the increasing order of polarity. The preliminary phytochemical

analysis showed the presence of alkaloid, tannin and phenol in benzene, chloroform and acetone extract whereas, saponin, flavonoid and steroid were not detected in any of the extracts. Disc diffusion technique was used to assess the antimicrobial activity of the leaf extract against bacterial and fungal strains. The extracts showed variable inhibition zone against tested microbes. The extracts showed maximum inhibition zone against *E. coli* and *A. flavus*. Chloroform and acetone extracts were more effective than benzene. The aqueous extracts were ineffective showing no inhibition zone at all. The results of the present study indicate that *Pithecellobium dulce* leaf extract possess as bioactive compounds which have antimicrobial properties.

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