

Antibacterial activity of leaf extracts of *Gymnema sylvestri* (R. Br.).

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Abstract

In vitro antibacterial studies were carried out with the aqueous extract of *Gymnema sylvestri* leaf powder (1:5) and gymnemagenin (1:10) on six human pathogenic bacterial strains using agar disc diffusion method at 50 µl, 150 µl and 200µl concentrations. Results revealed that the extracts showed good inhibitory activity against all the tested pathogens. Leaf powder extract was better in activity than gymnemagenin extract at the tested concentrations. The inhibitory activities were found to be dose dependent. The ranges of activity were in the order of *Shigella dysenteriae* (7.86, 10.20, 11.9 mm) > *Klebsiella pneumoniae* > *Escherichia coli* > *Pseudomonas aeruginosa* > *Staphylococcus aureus* > *Proteus vulgaris* for leaf powder extract and *K. pneumoniae* (5.00, 6.54, 11.54 mm) followed by *Shi. dysenteriae*, *Pro. vulgaris*, *E. coli*, *Staph. aureus* and *Pseudo. aeruginosa* for gymnemagenin extract. This study confirms significant antibacterial activity of *G. sylvestri* and the results suggest that *G. sylvestri* can be used as a potential antibacterial agent.