Antimicrobial Activity of Extracts of some Plants Collected from the Kingdom of Saudi Arabia

Essam Abdel-Sattar, PhD
Fathalla M. Harraz, PhD and Sabah H. El Gayed, PhD
Department of Natural Products and Alternative Medicine
Faculty of Pharmacy
King Abdulaziz University, Jeddah, Saudi Arabia
abdelsattar@yahoo.com

Abstract. The antimicrobial activity of twenty wild plants growing in the western regions of the Kingdom of Saudi Arabia was tested. The methanolic extracts from the aerial parts was determined using the agar diffusion method. Eight microorganisms were used in this study, namely, Escherichia coli, Proteus vulgaris, Pseudomonas aeruginosa, Staphylococcus aureus, Sarcina lutea, Bacillus subtilis, Mycobacterium phlei and Candida albicans. The results revealed that thirteen extracts exhibited a significant broad-spectrum antibacterial activity against both Gram-positive and Gram-negative bacteria. On the other hand, seven extracts showed only a narrow spectrum activity against Gram-positive bacteria. All the tested extracts with the exception of one plant showed a significant anti-mycobacterium effect, while they have variable antifungal effects.

Keywords: Antimicrobial activity, Antibacterial, Antifungal, Wild plants.