J.D.R.A.S. Vol. XXX, No.3-4, (2009) pp.77-82

IN- VITRO ANTIMICROBIAL POTENTIAL OF *BLUMEA LACERA* AND *BLUMEA ERIANTHA*

Rajesh Dabar[1], Desh Deepak Singh[2], Tushar Kanti Mandal[3], A.M. Gurav[4], Tasleem Arif [5], Vivek Bajpai[6] and Kailash Chandra[7]

(Approved on 16-07-2009)

Abstract

The antimicrobial potential of various fractions of two Blumea species were evaluated against five bacteria and four pathogenic fungi, using microbroth dilution assay. These plants are widely used in Ayurveda and traditional system of medicines in India to treat various types of microbial infections and other disorders. The extracts of Blumea lacera DC and Blumea eriantha DC exhibited antimicrobial activity in a range of 1.12 to 5.0 mg/ml against Salmonella typhi, Escherichia coli, Pseudomonas aeruginosa, Staphylococcus aureus and Bacillus cereus. Water and hexane extracts of Blumea lacera DC were found to be active against the Candida albicans, Aspergillus fumigatus, A. niger and A. flavus in a range of 1.12 to 20.0 mg/ml. However, in case of Blumea eriantha, only hexane extract exhibited poor antifungal activity. The studies were cross validated in triplicates at two laboratories to confirm the results.

1. R. O. (Biochem.), 3. R.O. (Ay.), 4. A.R.O. (Ay.), 5. Trainee (Biochem.), 7. Assistant Director, Regional Research Institute Pune (Mah.), 2. Lecturer, Department of Biomedical Sciences, Bundelkhand University Jhansi (M.P.) & 6. Lecturer (Microbiology), Department of Microbiology, Bundelkhand University Jhansi (M.P.)