

ABSTRACT

The present study was undertaken to evaluate the ethnomedicinal potential of some locally found important plants, such as *Centella asiatica*, *Rhynchosia pseudo-cajan*, *Buxus papillosa* and *Ficus palmata* through experimental trials. In order to investigate the ethnopharmacological effects i.e. antimicrobial, MIC, antidiabetic, antioxidant as well as anthelmintic activities of the plants. The crude extracts of powdered plant material were obtained in various polar and nonpolar solvents, viz: petroleum ether, chloroform, methanol and distilled water. Colour, texture and percentage yields of all the extracts were being determined. *Centella asiatica* rhizome, water extract showed the maximum yield (11.33 ± 0.11) among all the extracts. Well defined zones of inhibition were recorded indicating that the plants were potent against pathogenic microbes, such as i.e. *Staphylococcus aureus*, *Staphylococcus saprophyticus*, *E.coli* and *Pseudomonas aeruginosa*, *Aspergillus parasiticus* and *Rhizopus oryzae*. The highest zone of inhibition was shown by *Buxus papillosa* leaf water extract (68 ± 1.26^d) against *Rhizopus oryzae*. The leaf samples of all the plant extracts were used to determine the antidiabetic potential, and the extracts of *Centella asiatica* proved very good antidiabetic agents. The antioxidant activity of all the plant extracts was studied by DPPH Assay, Total Antioxidant Assay and Total phenolic Assay and the remarkable values comparable with the standard antioxidants were recorded. The *in vitro* anthelmintic activity of these plant extracts was found much stronger than the standard medicine, like Levamisole. Therefore, these plants can be declared as the possible source of antimicrobial, antidiabetic, antioxidant and anthelmintic agents to treat the ailments of man and his domestic animals like sheep, goat etc. For this purpose additional studies including toxicity level of these plants are needed.