ABSTRACT

The leaf, stem, root, flower and fruit extracts of the *Abutilon fruiticosum* Gill & Perr. and leaf, stem and flower extracts of the *Ipomoea cairica* (L.) Sweet were investigated for their ethnopharmacological effects, using phytochemical screening, antimicrobial activity, antioxidant potential and anthelmintic effect. The polar and non-polar solvents were used for extraction such as n-Hexane, chloroform, ethanol and distilled water. The phytochemical screening of the various extracts were executed and the results indicated the presence of the alkaloids, tannins, phenols, flavonoids, cardiac glycosides and saponins. Agar well diffusion method and Minimum Inhibitory Concentration (MIC) were applied to check the antimicrobial activity against four bacterial (*Escherichia coli, Bacillus subtilis, Staphyllacoccus aureus and Pseudomonas aeruginosa*) and two fungal strains (*Aspergillus niger and Aspergillus oryzae*). Among all the extracts aqueous and ethanol extracts of both the plants, i.e. *Ipomoea cairica* (L.) Sweet exhibited significant antibacterial activity ranging from 17±0.5mm to 39±0.5mm whiles the *Abutilon fruiticosum* Gill & Perr from 17±0.12mm to 34±0.23mm. The n-Hexane extracts of the *Abutilon fruiticosum* Gill & Perr. and aqueous extracts of the *Ipomoea cairica* (L.) Sweet showed remarkable zone of inhibition. The qualitative MIC was evaluated by the estimation of the growth of the microbes and the most resistant MIC value was shown by the ethanol fruit and stem extracts of the *Abutilon fruiticosum* Gill & Perr. and *Ipomoea cairica* (L.) Sweet, respectively. These plants studied for their antioxidant potential using DPPH free radical scavenging activity, Metal chelating activity, ABTS Assay, Total Phenolic Content and Total Flavonoid Content. The results displayed that the *Abutilon fruiticosum* Gill & Perr. extracts had maximum antioxidant potential then the *Ipomoea cairica* (L.) Sweet extracts. The anthelmintic activity of both the plant extracts were also executed against the round worms present in the sheep and goat, the *Haemonchus contortus.* The results showed that some extracts exhibited the stronger effect than the standard drug oxfendazol. Thus, the present investigation ascertained the ethnopharmacological potential of *Abutilon fruiticosum* Gill & Perr. and *Ipomoea cairica* (L.) Sweet extracts through various methods and found the chemical nature of plants.