ABSTRACT

The present ethnopharmacological study was carried out on two ethnobotanically important plants; *Impatiens edgeworthii* Hook. f. of family Balsaminaceae and *Ehretia serrata* Roxb. of family Boraginaceae for their possible medicinal potential, as a source of antimicrobial, antioxidant and anthelmintic agents. The extraction of different part of plants was carried out by maceration technique in various polar and non-polar solvents. The percentage yield of *Impatiens edgeworthii* Hook. f. varied from 0.5 to 8.94% with highest amount extracted from the root in ethanol while minimum amount in leaf in n-Hexane. The percentage yield of *Ehretia serrata* Roxb. ranged from 1.5 to 2.8 % with highest amount extracted from the bark and leaf in water whereas minimum in n-Hexane extract of stem. The phytochemical study showed that extracts of both the plants contained flavonoids, saponins, anthraquinones, reducing sugars, terpenoids, cardiac glycosides, tannins and alkaloids. The antimicrobial activity of both the plants revealed that *Ehretia serrata* Roxb. showed a reasonable activity against bacterium *Enterobacter faecalis* and fungus *Trichoderma viride* as compared to *Impatiens edgeworthii* Hook. f. that showed moderate activity against tested microorganisms. The antioxidant activity of both the plants confirmed their antioxidant abilities due to the total flavonoid and the total phenolic content of both the plants which varied 175 to 2725 at GAE ug/ml (Gallic Acid Equivalent ug per ml) and between 167.5 to 3772.5 GAE ug/ml(Gallic Acid Equivalent ug per ml), respectively . The value for %bound iron and TEAC value ranged between 5.2 to 85.21%. The redox properties were found responsible for antioxidant activity of these plants to act as reacting agent, hydrogen donators and oxygen quenchers as well as metal chelating potential. The DPPH assay of *Impatiens edgeworthii* Hook.f. ranged from 3 to 90 % at 300ug/ml, with maximum scavenging activity in n-Hexane extract of root and chloroform extracts of leaf, stem and flower, while *Ehretia serrata* Roxb. gave value of 5 to 95% at 300 ug/ml with maximum scavenging activity in chloroform extracts of stem, bark and leaf and lowest in ethanolic extracts of leaf, flower and bark. The anthelmintic activity of both the plants showed remarkable potency against nematode *Haemonchus contortus* as in *Impatiens edgeworthii* Hook. f., the most potent result was observed in ethanolic extracts of root as in 8 minutes showed death period while the aqueous extract of flower expressed least anthelmintic activity. In the case of *Ehretia serrata* Roxb., the most