

ABSTRACT

The present study was executed to analyze the pharmacognostic and ethnomedicinal potential of the organic and inorganic crude extracts of different plant parts of two important condiments i.e., Curry patta and Green Cardamom (Elaichi). Pharmacognostic studies revealed the macroscopic and microscopic features of the plant parts, showing anomocytic stomata, unicellular trichomes, oil glands in the leaf and trichomes on stem also in case of curry patta while paracytic stomata in the leaves of Elaichi. Ethnopharmacological evaluations involved the phytochemistry, including physicochemical features, percentage yields, antimicrobial and antioxidant activities. The highest yield (20.14%) was found in chloroform extract of Elaichi while lowest (0.22%) in n-Hexane extract of curry patta bark. The physical features recorded the color, consistency and odor of crude extracts. Important secondary metabolites like Steroids, phenols, tannins, alkaloids, terpenoids, cardiac glucosides and reducing sugars were found constituting the different extracts. Antioxidant activity explored by various assays recorded highest (1058.28mg/ml) total antioxidant activity in ethanolic extract of leaf base of Elaichi. Total phenolics content was recorded highest (627.38) in ethanolic extract of curry patta petiole, highest value of FRAP (897.21 eq.of Trolox) was by dist. H₂O extract of eliachi leaf. Chloroform and ethanol extracts depicted higher DPPH, total flavonoid content values, 272.048 for ethanolic extract of bark. Highest percentage of metal chelating (95.4%) was indicated by n-Hexane leaf extract of Elaichi and maximum value of ABTS+ assay by dist. H₂O of curry patta petiole. Antimicrobial activity recorded against *Escherichia coli*, *Bacillus cereus*, *Aspergillus niger* and *Penicillium notatum*, maximum zone of inhibition against *E.coli* indicated by chloroform extract of curry patta bark (28.5mm) and chloroform leaf extract of elaichi (15.3mm) while n-Hexane extract of stem (24.6mm) and chloroform extract of rhizome (15.5mm) against *B. cereus*. Maximum antifungal activity was recorded by ethanol extract of curry patta stem (11mm) and n-Hexane extract of Elaichi leaf (16mm) against *A. niger*, while maximum zone of inhibition was achieved by ethanolic extract of curry patta bark (6mm) and chloroform extract of Elaichi rhizome (3mm) against *P. notatum*. The results thus obtained support the ethnomedicinal potential of these condiments.