ABSTRACT

The present work was carried out to explore the ethnopharmacological characteristics of *Ruscus hypophyllum* Linn.,*Cotula anthemoides* Linn.,*Pyrus pashia* Buch.Ham.ex D.Don., and *Melhania futteyporensis* Munro ex Masters found in Punjab,Pakistan i-e. Antimicrobial,Antioxidan,Anthelmantic and Crystallization.The crude extracts of powdered plant material were obtained in various non-polar and polar solvents.The physico-chemical characteristics i-e.colour,texture,chemical nature and percentage yield were determined.*Ruscus hypophyllum* rhizome water extract indicated maximum yield (14.0%) among all the crude extracts of all plants.Well defined zones of inhibition were recorded that plants were potent against the pathogenic microbes i-e *Staphylococcus aureus,E.coli,S.saprophyticus,P.aeruginosa,Aspergillus parasiticus and R.oryzae.*The highest zone of inhibition against bacteria shown by Chloroform extract of rhizome(70±2mm) against *P.aeruginosa.*The highest zone against fungus shown by methanol extract of *R.hypophyllum* stem and Pet.ether extract of stem of *P.pashia* (62±2) agaist *A.parasiticus*.The antioxidant activity of all the plant extracts were measured by DPPH assay,Total Antioxidant assay and Total phenolic assay and significant values obtained comparable with the standard antioxidants recorded.The *in vitro* anthelmantic activity was determined of all the extracts ad found much stronger than standard medicine, like levamisole.Crystallization also done with all extracts but sulfur crystal was found only in *P.pasia* stem of orthorhombic shape. These plants thus represent a significant source of active antimicrobial compound for the treatment of human various ailments and also good source of natural antioxidants as compared to synthetic ones.These plants can also be proved helpful in treating animal gastro-intestinal diseases and can prevent the heavy loss of live stock and can proved to be helpful in improving the dairy food.