

Abstract

The present study was carried out to explore the Ethnopharmacological potential of the bark of three local fruit plants: *Punica granatum* L., *Psidium guajava* L. and *Ziziphus jujuba* Mill. of family Punicaceae, Myrtaceae and Rhamnaceae, respectively. Maceration was used as a means of extraction of bark in non-polar and polar solvents, i.e. n-Hexane, Chloroform, Ethanol and Water. The crude extracts were found different in appearance, colour, texture and odor. Some were blackish, brown and golden in colour. The smells were pungent, musky, etc. The extracts were sticky to non-sticky. Some of the extracts were gel like or amorphous, in shape. Chloroform extract of *Z. jujuba* showed maximum percentage yield, 8.0 %, while n-Hexane extract of *P. guajava* showed minimum percentage yield, 0.33%. All the extracts were found containing different phytochemicals as secondary metabolites including, terpenoids, tannins, saponins, reducing sugars, flavonoids, glycosides, alkaloids, and anthraquinon. The extracts indicated reasonably good ethnopharmacological potential in terms of their antimicrobial, antioxidant and anthelmintic capabilities. The ethanol bark extract of *P. guajava* showed higher antifungal potential against *P. notatum* and *A. niger* with 36.485 ± 0.1922 mm and 23.85 ± 0.454 mm of zone of inhibition, respectively. The ethanol bark extract of *P. granatum* showed higher antibacterial potential with 23.7 ± 0.2 mm, 30.13 ± 0.15 , 33.83 ± 1.10 mm and 32.86 ± 0.45 mm of zones of inhibition against *S. aureu*, *E. coli*, *B. subtilus* and *P. fluorescens*, respectively. Overall all the bark extracts showed antimicrobial potential in different ranges. The MIC values were also recorded. The distilled water bark extract of *P. granatum* showed maximum DPPH potential, i.e. 82.5 ± 2.13 % as well as maximum FRAP potential, i.e. 18.1 ± 11 % mM Trolox. The chloroform extract of *P. guajava* showed maximum metal chelating activity, i.e. 82.4 ± 2.8 and water extract of *P. grantum* showed maximum phenolic content, i.e. 347 ± 6.3 μ g/ml of Gallic acid. All the bark extracts showed anthelmintic activity, while bark extracts of *P. granatum* showed remarkable anthelmintic activity. These results support the traditional medicinal uses of these plants by local inhabitants