



ABSTRACT

The phytochemical, antimicrobial, antioxidant and anthelmintic status of *Chenopodium ambrosioides* L. and *Salsola imbricata* Forssk. was evaluated. The petroleum ether, methanol, chloroform and aqueous extract of *Chenopodium ambrosioides* L. and *Salsola imbricata* Forssk. obtained by maceration technique. Phytochemical analysis for anthraquinones, reducing sugar, tannins, saponins, flavonoids, alkaloids and cardiac glycosides was carried out and different extracts displayed positive results for different tests. All extracts showed positive results for terpenoids and flavonoids. Moreover, macerates didn't shows positive results for other tests. The Zone of Inhibition and MIC assay evaluated through agar well diffusion and broth dilution method. The investigation of both plants revealed that they have good to satisfactory potential against selected bacterial strains. *Salsola imbricata* Forssk. exhibited maximum potential against *B. subtilis* i.e. 40 ± 1.5 mm. Minimum potential showed by aqueous extracts of both plants. The estimation of antifungal activity exhibited that both plants have significant results. The maximum antifungal potential showed by *Salsola imbricata* Forssk. extract that is macerated in chloroform against *A. niger* i.e. 27 ± 1.5 mm. It is revealed that extracts macerated in distilled water have failed to show any potential against all test organisms employed. The highest TPC and TFC value exhibited by aqueous extract of *Salsola imbricata* Forssk. i.e. 1969.25 ± 0.8 GAE μ g/mL and 2876.18 ± 2.4 CE μ g/mL respectively. Both plants showed good potency against DPPH and ABTS activity. The results revealed that among these fractions aqueous soluble fraction exhibited highest DPPH radical scavenging activity i.e. 93.6%. The maximum % bound iron employed by fruit of *Chenopodium ambrosioides* L. macerated in water i.e. 76.99 ± 1.7 %. Investigation of anthelmintic activity exhibited that fruit of both plants *C. ambrosioides* L. and *Salsola imbricata* Forssk. more potent than of bark. The results revealed that *Salsola imbricata* Forssk. proved to be more potent than *C. ambrosioides* L. From antioxidant, antimicrobial, phytochemical and anthelmintic significant results, it was concluded that macerates are rich in bioactive compounds which would be expected to reinforce against per oxidative damage in living beings with respect to aging and carcinogenesis and might be a source of new drugs.