



Antioxidant activity and phytochemical screening of some common weeds available in Patna Women's College campus

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Abstract : *The phytochemical screening and the antioxidant activity of the methanolic and aqueous extracts of three weeds Phyllanthus niruri, Basella alba and Amaranthus tricolor were investigated and they revealed the presence of phenols, flavanoids, tannins, alkaloids, terpenoids and steroids. Of all three weeds selected, Phyllanthus niruri showed less H₂O₂ % inhibition as compared to Basella alba and Amaranthus tricolor. But the aqueous extract showed fairly moderate inhibition of 29.64% near to standard. Amaranthus tricolor showed highest % inhibition in all three weeds, methanolic and aqueous extracts showed 31% and 32%, respectively. Basella alba also showed % inhibition of 29% and 28% in aqueous and methanolic extracts,*

respectively. The Basella extract demonstrated highest total antioxidant capacity as flavanoid was detected in the extract. In P. niruri, methanolic extract showed higher activity than aqueous extract, however, in A. tricolor results were just the opposite. Plants exhibited reducing power ranging from 0.981 to 4.091. Amaranthus tricolor showed highest absorbance i.e high reducing power as compared to Phyllanthus niruri and Basella alba. The aqueous extract in Basella alba showed high reducing power as compared to the methanolic extract. However, in Phyllanthus niruri, methanolic extract showed high reducing power as compared to the aqueous extract. The antioxidant property is concentration dependent. There is variability in the antioxidant activity in the weeds. But all three weeds showed fairly moderate antioxidant activity. The results obtained in the study indicated that weed extracts are a potential source of natural antioxidants.

Keywords : *Antioxidant activity, free radicals, hydrogen peroxide, phenol, flavanoids.*