

P003 Antioxidant potential of Algerian medicinal plants used to treat inflammations

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Extracts from the barks of *Fraxinus angustifolia* as well as the leaves of *Pistacia lentiscus* and *Clematis flammula* have been investigated for their reducing power, inhibition of linoleic acid peroxidation and scavenging capacity on 2,2-diphenyl-1-picrylhydrazyl (DPPH) radical using *in vitro* spectrophotometric procedures. Our results indicate that the three plants are characterized by an overall high antioxidant potential. *Pistacia lentiscus* aqueous fraction obtained from chloroform partition showed high and dose-dependant reducing power ($IC_{50}=50.03\mu\text{g/ml}$), very high scavenging ability against DPPH radical ($IC_{50}=0.24\mu\text{g/ml}$) and an outstanding activity against linoleic acid peroxidation ($IC_{50}=0.82\mu\text{g/ml}$).

Fraxinus angustifolia aqueous fraction issued from chloroform extraction also exhibited relatively high DPPH scavenging activity ($IC_{50}=10.0\mu\text{g/ml}$) and a high activity against linoleic acid peroxidation ($IC_{50}=5.06\mu\text{g/ml}$). In contrast, the organic (chloroform) fraction of *Clematis flammula* showed high activity against linoleic acid peroxidation ($IC_{50}=4.6\mu\text{g/ml}$), whereas the aqueous fraction of chloroform showed moderate scavenging activity against DPPH ($IC_{50}=25.02\mu\text{g/ml}$). The IC_{50} values for the antioxidant of reference, butylhydroxyanisol (BHA) are 5.19, 6.16 and $71.16\mu\text{g/ml}$ for inhibition of linoleic acid peroxidation, DPPH scavenging activity and reducing power, respectively.

The observed results which correlate positively with total phenol content strongly plead in favour of the use of these plants in medication and as a potential source of new substances of therapeutic virtues.