

Antioxidant Activity of *Aristolochia longa* L. Extracts

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Abstract : *Aristolochia longa* L. (Aristolochiaceae) is a native plant of Algeria used in traditional medicine. This study was devoted to the determination of polyphenols, flavonoids, and condensed tannins contents of *Aristolochia longa* L. after their extraction by using various solvents with different polarities (methanol, acetone and distilled water). These extracts were prepared from stem, leaves, fruits and rhizome. The antioxidant activity was determined using three in vitro assays methods: scavenging effect on DPPH, the reducing power assay and β -carotene bleaching inhibition (CBI). The results obtained indicate that the acetone extracts from the aerial parts presented the highest contents of polyphenols. The results of The antioxidant activity showed that all extracts of *Aristolochia longa* L., prepared using different solvent, have diverse antioxidant capacities. However, the aerial parts methanol extract exhibited the highest antioxidant capacity of DPPH and reducing power (Respectively $55,04\mu\text{g/ml}\pm 1,29$ and $0,2\text{ mg/ml}\pm 0,019$). Nevertheless, the aerial parts acetone extract showed the highest antioxidant capacity in the test of β -carotene bleaching inhibition with 57%. These preliminary results could be used to justify the traditional use of this plant and their bioactive substances could be exploited for therapeutic purposes such as antioxidant and antimicrobial.

Keywords : *aristolochia longa* l., polyphenols, flavonoids, condensed tannins, antioxidant activity

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