



Phytochemical study and biological activity of different extracts from flowers of parasitic plant *Cistanche tinctoria* (Desf.) Beck.

CHENGUEL Aouatef¹, CHOUIKH Atef¹

¹Department of Biology, Faculty of Natural Science and Life, University of El Oued,
BP 789 El-Oued (39000) Algeria

Aaouatef@yahoo.com

Abstract

In order to evaluate the natural products of the desert plants, we conducted this work which is based on study the differences in amount of phenolic compounds and estimate the antioxidant activity of the parasite plant *Cistanche tinctoria* (Desf.) Beck (Orobanchaceae) growing in Oued-Souf region.

After the extraction processes, the yield of the three extracts (Crude, Flavonoids phase Ethyl acetate and Tannins) was estimated with a variance in its values, the highest value recorded in the methanolic extract (11.29 %), however the tannins extract got the lowest value (0.505%). The results of the estimation of phenolic compounds showed that polyphenols and flavonoids were estimated by 167.74 ± 24.36 mg EAG/g Extract, 26.76 ± 2.69 mg EQu/g Extract, respectively.

The results of antioxidant activity of the DPPH^{*} assay using Ascorbic acid and Butylated hydroxytoluene (BHT) as standard compounds, showed that tannins extract had the best inertial capacity than the other extracts ($IC_{50} = 8.12$ μ g/ml), however the results of Hemolysis test using only the Ascorbic acid as a standard compound showed that the Flavonoids extract got the lowest disintegration (27.47%).

Key words: *Cistanche tinctoria* (Forssk.) Beck., Polyphenols, Flavonoids, Tannins Antioxidant activity, DPPH test, Hemolysis test.