



Antioxydant and antidiabetic effects of hydromethanolics extracts from *Olea europea* and *Erythraea centaurium*

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Abstract

This work represent a part of the valorization of the hydro-methanolic extract of the leaves of *Olea europea* L. and flowering tops of *Erythraea centaurium* L. by the evaluation of antioxidant and antidiabetic activities of polyphenols. The antioxidant power of these extracts was evaluated in vitro by the DPPH test, after having quantified the total polyphenols. It appears that they have a capacity to trap the DPPH radical with an IC₅₀ of 0.475 mg / ml and 0.495 mg / ml. for the extract of *Olea europea* L. and *Erythraea centaurium* L. respectively. The α -amylase test has been recommended for the evaluation of the in vitro antidiabetic effect of olives and small cornflower, the results obtained show a high capacity for inhibition of the enzyme α -amylase with a percentage of more than 80% for the *Olea europea* L extract and about 60% for the *Erythraea centaurium* L extract. The present study has shown that the antioxidant activity and inhibitory effect of α -amylase hydro-methanolic extracts of both plants are strongly related to its richness in polyphenols that can be exploited in the pharmaceutical field.

Key words: *Olea europea* L, *Erythraea centaurium* L, polyphenols, antioxidant activity, antidiabetic activity.