THE ANTIOXIDANT AND ANTI-INFLAMMATORY ACTIVITIES OF THE METHANOLIC EXTRACT OF *TAMUS COMMUNIS* L. ROOTS

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Abstract - *Tamus communis* L. (Dioscoreaceae) traditionally used in folk medicine in Algeria to lower inflammatory pain and in the treatment of rheumatism. The objective of the present work is to evaluate the antioxidant and anti-inflammatory effects of the methanolic extract of *T. communis* roots. The antioxidant capacity was determined DPPH and β-carotene/linoleic acid tests. Carrageenan-induced paw edema in rat was used as the experimental model for the inflammation. Three doses (150, 300 and 600 mg/kg body weight) of the methanolic extract of *T. communis* were selected for the anti-inflammatory study. The antioxidant activity using DPPH showed an IC_{50} of 0.128 ± 0.011 mg/ml. Using the β-carotene/linoleic acid bleaching assay, the methanolic extract of *T. communis* exhibited high antioxidant activity with 88.13 ± 4.03% inhibition. In carrageenan-induced paw edema in rat, all doses of *T. communis* did not show inhibition of rat paw edema. In conclusion, the methanolic extract of *T. communis* exhibited high antioxidant activity which is related to their phenol compounds.

Keywords - *Tamus communis* L., antioxidant, anti-inflammatory, DPPH. β-carotene.