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## Antioxidant activity and preventive possibility of Algerian medicinal plant *Matricaria pubescens* on hepatic toxicity

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The liver is a target organ for many chemical products. During normal cellular activities, various processes inside of cells produce reactive oxygen species (ROS). Some of the most common ROS are hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>), superoxide ion (O<sub>2</sub><sup>-</sup>) and hydroxide radical (OH<sup>•</sup>). These compounds, when present in a high enough concentration, can damage cellular proteins and lipids or form DNA adducts. Injection of carbon tetrachloride (CCl<sub>4</sub>) intraperitoneally into model animals induces acute liver injury mediated by trichloromethyl radical (CCl<sub>3</sub><sup>•</sup>) as reactive metabolites in hepatocytes. In this study, the cellular process in this type of liver injury was analyzed from the aspect of liver function and the antioxidant activity of methanolic extracts of *Matricaria pubescens*. Results obtained shows that the carbon tetrachloride on dose 3 ml/kg is responsible for hepatotoxicity. On the contrary, their association to methanolic extracts cancel their toxic effects on the tissues by the decrease of serum transaminases levels (TGO, TGP) and reinforce the antioxidants capacities of defense by decrease of cytosolic MDA, this will prove the preventive effect of methanolic extracts on the toxicity of the CCl<sub>4</sub>.

### Biography

Khelifi Touhami Fatima has completed his PhD at Université Constantine 1, Algeria. She is the Director of Research Laboratory of Ethno-botany-palynology & Ethno-pharmacology-toxicology at Université de Constantine1. She has published more than 20 papers in reputed journals. She has many research projects on "Endemic Algerian medicinal plants and their activities (antioxidant, preventive effects, anti-diabetic, antitumor and anti-hyperthyroidism).

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