**Effect of commune Moroccan Honey on cyclophosphamide induced genotoxicity in *Vicia faba* root and Enzymes Linked with Human Diseases.**

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The present study was carried out to evaluate the genotoxic effects of bioactive compounds present in Moroccan honey, against cyclophosphamide (CP)-induced cytotoxicity and genotoxicity in *Vicia faba* roots. This research was carried out in two stages. In the first stages, the exposure of *Vicia faba* plants to two till three concentrations of the phenolic extract of honey, showed no significant differences of genotoxic and cytotoxic effect between the concentrations of the eight extracts (P value > 0.05). The determination of the genotoxic effect of the different treatments in comparison with CP shows essentially that the Fennel honey extract has the highest genotoxic effect in comparison with the other treatments with a genotoxic effect value of 64.36 ± 20.96 %. In the second stage, interactions between two concentrations of each type of honey extract (1mg/mL and 0.1 mg/mL) and CP were used to test the effects of honey extracts on CP-induced toxicity. The results indicated that, especially for Thyme honey at the concentration 0.1mg/mL, a low micronucleus frequencies and a high anticlastogenic efficacy in compariason with the genotoxic actions of CP only. In addition, in order to have a comprehensive idea of the preventive potential of the analyzed honey extracts, the present study is also interested in the *in vitro* evaluation of the inhibitory capacities of the different honey extracts on Acetylcholinesterase, Pancreatic lipase, and α-Glucosidase activities, The results showed a strong inhibitory potential for Thistle and Thyme honey extracts compared to other types of honey extracts, which is specifically explained by the characteristic phenolic profile of each type of honey extract, involving the structural characteristics of the different molecules of each profile.