

Etude de quelques paramètres biochimiques sur l'activité hépatoprotectrice de l'extrait de la plante *Citrullus colocynthis*.

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Historically, medicinal preparations are derived from plants, whether in the simple form of plant parts, or as crude extracts or mixtures, among others. Today a substantial number of drugs are developed from plants which are active against a number of diseases (**Haneefa et al., 2010**). This might be due to the fact that plants are a particularly good source of compounds with antioxidant properties. *Citrullus colocynthis*, revealed considerable concentrations of phenolics, flavonoids, ascorbic acid, tocopherols, carotene, saturated (hexadecanoic and tricosanoic) and polyunsaturated ((9Z,12Z)-octadeca-9,12- dienoic and (9Z,12Z,15Z)-octadeca-9,12,15-trienoic) fatty acids (**Barros et al., 2011**). The objective of our work is to evaluate the effects of Enrichment in the PUFA of the standard regime and the regime by the extract of *Citrullus colocynthis* on the live weight and on a few biochemical parameters (total cholesterol, triglycerides, HDL-C, LDL-C, AST and ALT) and markers of inflammation; the CRP. In case of excess, hypercholesterolemia, considered as an independent risk factor for atherosclerosis, can cause a lot of molecular alterations and cellular. Mice *Mus musculus*, had received the standard regime or the regime enriched or not by the extract of *Citrullus colocynthis* during 18 days. Our results show that the regime hypercholestérolémiant induces hyperphagia and obesity in mice under hypercholestérolémiant regime compared to control mice. After oral administration of the high dose of cholesterol, the degradation of this last product an excess of cholesterol in the blood plasma, which is in turn cause an increase very highly significant of the AST, ALT and the CRP but not significant for the TG, HDL and LDL. However, mice treated by cholesterol with extract of *Citrullus colocynthis* have shown a significant decrease of the AST, ALT, cholesterol, TG, LDL and the CRP but not significant for the HDL. Therefore, the oil of *Citrullus colocynthis* has beneficial effects on the redox status and presents a nutritional interest. The results obtained in this study show that the extract of *Citrullus colocynthis* can be considered as a natural source to prevent and treat cardiovascular diseases.

Key words: *Citrullus colocynthis*, hypercholesterolemia, inflammation and CRP.