ABSTRACT

Effect of Quercetin on Expression of mRNA SREBP-1c in NAFLD With *High Fat Diet* Model

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Liver is one of the most vital organs that functions as a center for metabolism. One of the diseases that disrupt liver function with a high prevalence is NAFLD (Non Alcoholic Fatty Liver Disease). NAFLD is characterized by increased intracellular triglyceride accumulation. Sterol regulatory binding protein - 1c (SREBP-1c) is one of the main regulators of gene expression involved in lipogenesis and the synthesis of liver triglycerides. Quercetin is reported to have hepatoprotective effects and has been widely used to treat the metabolic syndrome associated with NAFLD. Based on several previous studies, quercetin may be useful for the treatment of NAFLD by targeting various pathways in the development of NAFLD. The aim of this study is to investigate the effect of quercetin on the expression of mRNA SREBP-1c of mice with High Fat Diet induced NAFLD. The study divided animals into seven groups as standard feed; High Fat Diet (HFD); HFD and Quercetin 50 mg/kgBW for 28days i.p ; HFD and Quercetin 100 mg/kgBW for 28 days i.p ; HFD and Quercetin 50 mg/kgBW for 14 days i.p ; HFD and Quercetin 100 mg/kgBW for 14 days i.p ; HFD and repaired – fed. Based on the results of the study, it can be concluded that quercetin as an antioxidant can reduce levels of SREBP-1c in the liver in NAFLD mice fed High Fat Diet.

Keywords : Non Alcoholic Fatty Liver Disease, NAFLD, Quercetin, High Fat Diet, SREBP – 1c