



## **Comparative study for the Preventive effect of Quercetin and Trigonellafenumgraecum extract in carbon tetrachloride induced hepatotoxicity at male rats**

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**Abstract:** The Liver is considered the main organ that is responsible for the detoxicating of the human body, which makes it the first defense in facing the different chemicals entering the body from the Digestive System. According to that, this study was designed to study Quercetin and *Trigonellafenumgraecum* Seeds' extracts preventive effect in the carbon tetrachloride poisoned hepatic tissue of the male rats liver and knowing their effects if used together. The study is conducted at the Faculty of Pharmacy, Kufa University, that include using 35 (Sprague-Dawley)-rats which were divided into five groups: Control Group, Positive Control Group, Extract-Treated Group, Quercetin-Treated Group, and Dually treated Group. The dosage lasted for 7 days, and on the 8<sup>th</sup> day, they were poisoned with carbon tetrachloride, and killed after 24 hours. The study continued from April 2013, to July 2013.

The livers of the treated animals were weighed and the effectiveness of the transferase enzymes (ALT and AST), Alkaline Phosphatase enzyme (ALP) and the overall bilirubin level in the antidote. The results showed an increased weight of the liver and effectiveness of the transferase and phosphatase enzymes, and the bilirubin level in the antidote of the treated animals when compared to the Positive Control Group.

The results of the study showed that the *TrigonellaFenumGracum* Seeds' extracts and the Quercetin showed a preventive effective in protecting the hepatic tissue against the carbon tetrachloride toxication through maintaining the liver enzymes and the bilirubin level. Moreover, using both of the materials, the *TrigonellaFenumGracum* Seeds' extracts and the Quercetin, helped to double protect the high efficiency hepatic tissues because of the positive effect they have when used together.