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# Effect of ethanolic extract of syzygium aromaticum on the liver of male rats exposed to mercury chloride toxicity

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**Mercury chloride is a highly toxic compound, with corrosive properties that can cause severe internal damage, including ulcers in the stomach, mouth, throat, kidney, liver and corrosive damage to the intestines. This study evaluates the effect of ethanolic extract of syzygium aromaticum on the liver of adult male Wister rats exposed to mercury chloride. A total of twenty-five rats were randomly divided into five groups, each consisting of five animals. Group A served as the control and was given distilled water and food. Group B was administered mercury chloride at a dosage of 7.5 mg/kg orally. Group C received an oral dose of 400 mg/kg of ethanolic extract of Syzygium aromaticum. Groups D and E were treated with mercury chloride followed by the ethanolic extract at doses of 200 mg/kg and 400 mg/kg, respectively, for a duration of 21 days. Liver tissues were collected and processed for histological and biochemical analysis. The results indicated mild degenerative changes and reactive hepatocytes, alongside elevated liver enzyme levels in the mercury chloride-treated rats. In contrast, administration of the Syzygium aromaticum extract restored normal liver architecture and offered protection against mercury chloride-induced hepatotoxicity. These findings suggest that ethanolic extract of syzygium aromaticum possesses protective properties against mercury chloride induced hepatotoxicity in male Wister rats.**

**Keywords:** Syzygium aromaticum, Mercury chloride, hepatocytes, mercury chloride induced hepatotoxicity.