



The Effect of Turmeric Rhizome (*Curcuma Longa Linn*) On Decreasing Non-Alcoholic Steatohepatitis in Deep Frying Oil Induced Male Wistar Rats

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Abstract : Deep Frying oil/ DFO is cooking oil from high and repetitive heating temperatures. The use of DFO can increase steatosis hepatocyte with inflammation and hepatocellular injury (ballooning hepatocytes) which is a typical sign of Non-alcoholic steatohepatitis/ NASH. This disease must be treated as quickly as it can cause complications of liver cancer and liver cirrhosis. Turmeric rhizomes containing curcumin was active anti-oxidants which can inhibit fat accumulation intra-hepatic. The present study was conducted to evaluate the effect of turmeric rhizome to reduce fat degeneration in male Wistar rats in the NASH model. This study was experimental with a randomized post-test only control group design. The number of 24 samples consisted of four treatment groups. Group I (control): normal diet + DFO (10 μ l/g /day), Group II, III and IV: normal diet + DFO + turmeric extract doses (100, 200, and 400 mg /kg BW/day, orally for 30 day at 6 times frying. The results of the Kruskal-Wallis test showed significant differences between the four treatment groups in steatosis ($P < 0.05$) and there were no significant differences in hepatocyte ballooning and lobular inflammation. The results of Mann-Whitney test showed significant differences in hepatocyte stestosis between the control group (P1) and the treatment group (P3) with a dose of 200 mg / kg BW. It showed that the dose was effective inhibit of NASH.

Keywords: Turmeric, NASH, DFO, fat degeneration.

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