

Pemanfaatan ekstrak etanol rimpang temu mangga (curcuma mangga val.) terhadap kadar bilirubin total dan bilirubin direct serum darah tikus (rattus norvegicus l.) jantan galur sprague-dawley = The utilization of ethanol extract mango ginger (curcuma mangga val.) rhizomes to total bilirubin and direct bilirubin of the sprague-dawley pure strain male rats (rattus norvegicus l.) blood serum

Findra Mellya Normasiwi, author

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Abstrak

Telah dilakukan penelitian untuk mengetahui bahwa ekstrak etanol rimpang temu mangga Curcuma mangga Val. berpengaruh terhadap kadar bilirubin total dan bilirubin direct akibat kerusakan hati yang diinduksi oleh karbon tetraklorida CCl₄. Hewan uji yang digunakan dalam penelitian yaitu 24 ekor tikus Rattus norvegicus L. jantan galur Sprague-Dawley yang dibagi menjadi enam perlakuan KK1, KK2, KP1, KP2, KP3, dan KP4 dengan empat kali ulangan. Kelompok KK1 merupakan kelompok kontrol normal yang tidak diinjeksikan CCl₄ dan dicekok CMC 0,5, KK2 merupakan kelompok kontrol perlakuan yang diinjeksikan CCl₄ sebanyak 1 ml/kgBB secara intraperitoneal dan dicekok CMC 0,5. Kelompok KP1, KP2, KP3, dan KP4 merupakan kelompok perlakuan yang diinjeksikan CCl₄ 1 ml/kgBB dan diberikan ekstrak temu mangga dengan dosis berturut-turut 10 mg/kgBB, 20 mg/kgBB, 40 mg/kgBB, dan 80 mg/kgBB. Hasil uji non parametrik Kruskal-Wallis $\chi^2 = 0,05$ menunjukkan bahwa dosis 10 mg/kgBB, 20 mg/kgBB, 40 mg/kgBB, dan 80 mg/kgBB berpengaruh terhadap kadar bilirubin total dan bilirubin direct. Hasil uji perbandingan berganda Dunnett T3 $\chi^2 = 0,05$ menunjukkan bahwa dosis-dosis tersebut tidak berbeda bermakna dengan KK1. Dengan demikian dosis-dosis tersebut memiliki efek kuratif karena dapat menurunkan kadar bilirubin total dan direct sampai mendekati kadar normal.

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This study was conducted in order to observe that the ethanol extract of mango ginger rhizome Curcuma mangga Val. affect the level of total bilirubin and direct bilirubin due to liver damage induced by tetrachloride carbon CC₄. The test animals in the study were 24 male rats Rattus norvegicus L. of Sprague Dawley strain that was divided into six treatment KK1, KK2, KP1, KP2, KP3 and KP4 and repeated four times. The KK1 group is a normal control group that was not injected with CC₄ and 0.5 CMC fed, KK2 group is a treatment group that was intraperitoneally injected with CC₄ treatment in the amount of 1 ml kgBW and 0.5 CMC fed. KP1, KP2, KP3 and KP4 are treatment groups that got injected with CC₄ 1 ml kgBW and were given mango ginger rhizome ethanol extract each with a dose of 10 mg kgBW, 20 mg kgBW, 40 mg kgBW, and 80 mg kgBW respectively by oral. The results of Kruskal Wallis non parametric test 0,05 shows that the dose of 10 mg kgBW, 20 mg kgBW, 40 mg kgBW, and 80 mg kgBW impacted on total bilirubin and direct bilirubin levels. Dunnet rsquo s T3 0,05 multiple comparison test result shows that the dosages had no significant differences with KK1 group. In conclusions, the dosages could be deemed as have curative effects since they successfully reduce the level of total bilirubin and direct bilirubin until it approached normal level.