

7th European Biosimilars Congress

May 15-16, 2017 Munich, Germany

Study of liver toxicity and its reversibility of *Cassythia filiformis* defatted ethanolic extract on mice

Armenia Nazar, Muhammad Arief, Mifta Huljannah, Yori Yuliandra and Helmi Arifin
University of Andalas, Indonesia

A liver toxicity and its reversibility study of the defatted ethanol extract of *Cassythia filiformis* L. on male mice has been carried out. Animals were fed with the extract at doses of 5, 10 and 20 mg/kg orally for 7 consecutive days. One, 3, and 7 days after the doses termination of the extract, ALT, ALP activities, and the liver ratio were measured. The data were analyzed by two-way ANOVA followed by Duncan's multiple test regions. The results showed that animal ALT, ALP activities and liver ratio increased significantly after extract administration ($p < 0.05$) but then decreased significantly ($P < 0.05$) after administration of the extract was stopped. The averages ALT activity at the end of extract dosing and 1, 3, 7 days after extract doses were stopped were 63.62 ± 6.45 ; 51.40 ± 5.65 ; 40.26 ± 5.46 ; 32.17 ± 6.47 UI/L, while the averages ALP activity were 56.36 ± 10.47 ; 40.59 ± 17.08 ; 26.49 ± 4.95 ; 26.04 ± 4.14 UI/L, respectively. The averages of liver ratio were 0.034 ± 0.0026 ; 0.050 ± 0.0016 ; 0.052 ± 0.0022 ; 0.052 ± 0.0012 . Those parameters were also increase significantly according to the doses of extract ($P < 0.05$). The averages ALT activities of the animal at doses of 5 mg/kg, 10 mg/kg, and 20 mg/kg were 27.36 ± 3.45 ; 47.31 ± 5.25 ; 65.91 ± 3.24 UI/L, when the average of ALP activities were 21.71 ± 6.53 ; 36.53 ± 6.14 ; 53.87 ± 12.49 UI/L, with the liver ratio of 0.050 ± 0.0025 ; 0.047 ± 0.0029 ; 0.044 ± 0.0027 , respectively. These results indicated that the *Cassythia filiformis* L. extract is toxic to the liver but the toxicity is reversible depends on the dose of the extract.

Biography

Armenia Nazar currently working as Professor at Department of Pharmacy, University Of Andalas, Padang, Indonesia. She completed her doctorate in Physiology and Pharmacology at University of Science Malaysia. She gave her presentations in many international conferences, She is the Vice Dean for the Cooperation and Students Affairs.

meniaua09@gmail.com

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