

Ariesta Adriana Sagita, 2012, Subchronic Toxicity Test of Polysaccharide Krestin of Mushroom *Coriolus versicolor* Extract on Histological Hepar and SGPT Levels on *Mus musculus L.* Thesis was supervised by Dr. Sri Puji Astuti Wahyuningsih, M. Si., and Drs. Saikhu Akhmad Husen M. Kes., Biology Department of Faculty of Science and Technology, Airlangga University, Surabaya

ABSTRACT

Coriolus versicolor contained polysaccharide krestin (PSK). Recent studies demonstrated that PSK could be immunomodulator. But PSK contained poison. This research evaluated the effect of subchronic toxicity of PSK to damage hepatocyte and SGPT levels on mice. Polysaccharide krestin was administrated for 62 days by *gavage* which divided by 4 groups: P0 is control, P1 1,5 mg/kg of body weight, P2 3 mg/kg of body weight, and P3 6 mg/kg of body weight. After that, blood was taken for measuring SGPT levels and the hepar was taken for maked histological. Data analyzed by *One Way Anova* and Duncan test with $\alpha = 5\%$. The result of this research showed that P0 had a lot of normal hepatocyte but the number of hydropic and necrosis was little. P1 showed that amount of normal hepatocyte was fewer than P0. The mean of hydropic was equal to control group but P1 had necrosis more than P0. Amount of normal hepatocyte of P2 was fewer than P0 and P1 but it had a lot of hydropic and necrosis more than P1. The number of normal hepatocyte of P3 was least of all but it had hydropic and necrosis was at most of all. There was not difference of swelling of hepatocyte between control group and treatment groups. There was not difference of SGPT levels between control group and treatment group. Giving polysaccharide krestin (PSK) of the extract of *Coriolus versicolor* for 62 days decreased percentage of normal hepatocyte but increased swelling, hydropic, and necrosis hepatocyte on dosage 3 mg/kg and 6 mg/kg of body weight. On dosage 1,5 mg/kg of body weight decreased percentage of normal hepatocyte but was not increased swelling and hydropic. Besides, PSK was not influence the level of SGPT on mice.

Key words: polysaccharide krestin, *Coriolus versicolor*, subchronic toxicity test, hepatocyte damage, SGPT