

ABSTRACT

Istiqamah, Amalia. 2017. ***Effect of Polysaccharide Peptide of Ganoderma Lucidum on Amount of Vasa Vasorum in Rat Rattus Novergicus Starin Wistar Diabetes Mellitus Type 2***. Final Assignment, Medical Program, Faculty of Medicine, Brawijaya University. Supervisors: (1) Dr. Titin Andri Wihastuti, S.Kp, M.Kes. (2) dr. Kenty Wantri Anita, M.Kes, Sp.PA.

Diabetes mellitus is a condition of insulin resistance resulting in hyperglycemia that will cause vascular damage due to oxidative stress and proinflammation. Inflammatory processes as well as oxidative stress can cause cell hypoxia resulting in increased expression of HIF-1 α and VEGF that will trigger vasa vasorum angiogenesis. Polysaccharide peptide on Ganoderma lucidum has antiangiogenesis effect on rat aortic tissue with diabetes so as to prevent pathologic angiogenesis. True experimental laboratory with randomized post test control group design using 25 Wistar rats (Rattus Norvegicus) divided into 5 groups: normal group, hypercholesterol diet group, and 3 groups of hypercholesterol diet with different doses of PSP that is 50 mg/kgBW, 150 mg/kgBW, 300 mg/kgBW. The results of the study using ANOVA test ($p < 0,05$) showed that there was significant polysaccharide peptide effect on decreasing vasa vasorum ($p = 0.00$). The conclusion of this study PSP Ganoderma lucidum is a vasa vasorum antiangiogenesis agent in patients with diabetes mellitus type 2.

Keyword : *atherosclerosis, Diabetes Mellitus, vasa vasorum, angiogenesis, Ganoderma lucidum*