

ABSTRACT**Protecting effects of Probucol against
pathogenesis of diabetic nephropathy on mice****Sri Purwaningsih**

Diabetes mellitus is a metabolic syndrome with dyslipidemia, atherosclerotic and procoagulant state, and became primary cause of macrovascular and microvascular disturbances. One of microvascular disorder, namely endothelial dysfunction, became suspected primary cause of pathogenesis of diabetic nephropathy, which can further contribute to renal failure and has high mortality rate.

Probucol is a lipophilic antioxidant agent which has ability to protect and prevent LDL oxidation, lipid peroxidation on cell membranes, and to reduce superoxyde free radical level in the target tissues and cholesterol level in the blood.

The aim of this research was to study the preventive effects of Probucol against renal structure changes on diabetic mice.

The diabetic mice was made by injecting of alloxan monohydrate 140 mg/bw intraperitoneally. Whole experimental animals were divided randomly to be control group, and the treated group. Each group used in this experiment consisted of 10 animals. All the treated animals given Probucol for 28 days. On the 29th day, all animals were decapitized and otopsy was done for histopathologic examination.

The results of the experiments showed that the thickness of basalis membrane of glomerulus, happened on the treated animals (85% more thicker than control animals), but did not on the control animals. From statistical analysis, showed that these differences were very significant ($P < 0.05$), and seemed that there was a liniar correlation between dosage of Probucol and the thickness of basalis membranes of glomerulus. Much higher dose used, more protected effects were found, especially in reducing of the thickness of basalis membranes of glomerulus.

Key words : Diabetic nephropathy, Antioxidant effects, Probucol