CHAPTER VI
CONCLUSION AND SUGGESTION

The results in the present study indicated that the daily oral feeding of garlic extract at the dose of 100 mg/kg.BW. could reduce blood glucose while serum insulin was significantly increased as compared to STZ-induced rats. Hypoglycemic activity of garlic were 74.22%, 96.23% and 93.27% as compared to tolbutamide at 8, 16 and 20 weeks, respectively. These results suggested that the hypoglycemic effect of garlic extract were concomitant with the abilities of normalizing dyslipidemia. Besides, garlic could attenuate and prevent abnormalities of cardiovascular functions. As the results, SBP, DBP, MAP were significantly decrease ; HR, AFR, CFR, LVIC were significantly increase at 8, 16 and 20 weeks. However, garlic extract could not significantly reduced proteinuria at all three monitored time points.

Ultrastructurally, intramural coronary arteries and arterioles demonstrated a markedly increased of vascular wall thickness, a narrowed vascular lumen and the increase of basement membrane in myocardial capillaries of STZ-rats. Interestingly, garlic extract seems to prevent these morphological alterations.

Based on these findings, it is reasonable to suggest that garlic is indeed a useful agent to prevent and delay cardiovascular complications in diabetes. However, it might be involved in duration of diabetes and dose of garlic extract. Moreover, the effect of garlic on β-cell need to be studied in the future.