The Cut-off Point of Interleukin-6 Level in Acute Coronary Syndrome

AIM: this study aimed to observe whether the interleukin-6 level in acute coronary syndrome (ACS) patients were higher than those in coronary heart disease (CHD) patients. In addition, we would like to observe the cut off point of interleukin-6 level in ACS. METHODS: this cross sectional study were conducted at Dr. Cipto Mangunkusumo General Hospital (RSUPN-CM), Persahabatan Hospital, MMC Hospital and Medistra Hospital, Jakarta. The study started from 1 May 2005 to 5 May 2006. RESULTS: in this observational study, as many as 62 CHD patients were collected and 84 ACS that met the study criteria. Demographic analysis showed that there was no difference in ages among the two groups (ACS and CHD). The risk factors of dyslipidemia, hypertension and lipid profile in the two groups did not differ significantly. Waist circumference and IMT, systolic and diastolic blood pressures in the two groups did not also differ significantly. Smoking was more prevalent in the groups of ACS than in the groups of CHD. In this study the IL-6 level in ACS (mean 40.85 pg/mL, SD 41.71, CI 95% 25.63-42.08 was higher than that in CHD (mean 4.58 pg/mL, SD 9.61, CI 95% 2.14-7.02). To identify the IL-6 level as the predictor for the occurrence of ACS, sensitivity and specificity were calculated at various cut-off points of IL-6 level. At cut-off point of IL-6 4.43 pg/mL the highest sensitivity (89.95%) and highest specificity (77.42%) were found with ROC of 0.87. CONCLUSION: it could be concluded that the IL-6 level in ACS were higher that those in CHD. The IL-6 level 4.43 pg/mL could differentiate the acute condition (ACS) and stable condition (non-ACS) with sensitivity of 89.95% and specificity of 77.42%, and ROC of 0.87.