INTISARI

Variasi Genetik Apolipoprotein A-I pada Penderita Dislipidemia Etnis Jawa di Yogyakarta

Latar Belakang: Dislipidemia sebagai faktor risiko penyakit kardiovaskuler menjadi salah satu masalah kesehatan di Indonesia karena proporsinya yang tinggi di masyarakat. Variasi genetik ApoA-I rs670 dan rs5070 diketahui berhubungan dengan kadar kolesterol, insulin, dan adipositas. Penelitian terhadap variasi genetik tersebut masih menunjukkan hasil yang bervariasi pada berbagai populasi. Belum ada studi mengenai variasi genetik ini di populasi jawa. **Tujuan:** Studi ini bertujuan untuk mengetahui hubungan variasi genetik rs670 dan rs5070 dengan dislipidemia. **Metode:** Penelitian ini dilakukan pada 60 penderita dislipidemia dan 60 kontrol etnis Jawa. Kasus dan kontrol dilakukan *matching* berdasarkan jenis kelamin dan usia. Penentuan penderita dislipidemia menggunakan batas nilai normal kolesterol NCEP ATP III. Penentuan genotip responden dilakukan dengan teknik PCR-RFLP. Hasil penelitian dianalisis secara bivariat dan multivariat. **Hasil:** Genotip AA dari rs670 memiliki risiko yang rendah mengalami dislipidemia (OR 0,350; CI 95% 0,095-1,283) daripada genotip GG, tetapi secara statistik tidak signifikan (p=0,105). Genotip CT/TT rs5070 lebih berisiko terhadap dislipidemia dibandingkan dengan genotip CC (OR 4,466; CI 95% 1,451-13,751; p 0,009). Alel T ditemukan lebih berisiko mengalami dislipidemia daripada alel C (OR 4,186; CI 95% 1,452-12,068; p=0,008). Haplotipe AACC memiliki faktor risiko lebih rendah terhadap dislipidemia dibandingkan dengan GGCC (OR 0,190; CI 95% 0,037-0,982; p=0,034). **Kesimpulan:** Variasi genetik rs5070 berhubungan dengan kejadian dislipidemia. Haplotipe AACC merupakan faktor genetik proteksi terhadap dislipidemia.

Kata kunci: dislipidemia, variasi genetik, ApoA-I, HDL.

ABSTRACT

Genetic Variation of Apolipoprotein A-I in Javanese Ethnic Dyslipidemia Patients in Yogyakarta

Background: *Dyslipidemia as a risk factor for cardiovascular disease is a health problem in Indonesia because of its high proportion in the population. Genetic variations of ApoA-I rs670 and rs5070 are known to be associated with cholesterol, insulin, and adiposity levels. Research on genetic variation still shows varying results in various populations. There have been no studies on this genetic variation in the Javanese population.* ***Objective:*** *This study aims to determine the relationship between genetic variation of rs670 and rs5070 with dyslipidemia.* ***Methods:*** *This study was conducted on 60 patients with dyslipidemia and 60 controls of Javanese ethnic. Cases and controls were matched based on gender and age. Determination of patients with dyslipidemia based on NCEP ATP III normal value limit for cholesterol. Determination of the genotype of the respondents was carried out using the PCR-RFLP technique. The results of the study were analyzed by bivariate and multivariate.* ***Results:*** *The AA genotype of rs670 had a lower risk of dyslipidemia (OR 0.350; 95% CI 0.095-1.283) than the GG genotype, but not statistically significant (p=0.105). The CT/TT genotype of rs5070 had a higher risk of dyslipidemia than the CC genotype (OR 4,466; 95% CI 1,451-13,751; p 0.009). The T allele was found to have a higher risk of developing dyslipidemia than the C allele (OR 34,186; CI 95% 1,452-12,068; p= 0,008). The AACC haplotype had a lower risk of dyslipidemia compared to GGCC (OR 0.190; 95% CI 0.037-0.982; p=0.034).* ***Conclusion:*** *The genetic variation of rs5070 is associated with the incidence of dyslipidemia. The AACC haplotype is a genetic protective factor for dyslipidemia.*

Keywords: dyslipidemia, genetic variation, ApoA-I, HDL