

ABSTRAK

HUBUNGAN ANTARA KADAR FIBRINOGEN DAN *LOW DENSITY LIPOPROTEIN* (LDL) KOLESTEROL DENGAN INFARK MIOKARD AKUT**Imam Sulestiyo, J. Nugroho EP**

Pendahuluan : Fibrinogen telah diteliti sebagai faktor risiko terjadinya penyakit kardiovaskuler khususnya infark miokard akut (IMA). Adanya peran dari trombosis pada peningkatan fibrinogen diduga menjadi penyebab dari efeknya. Peningkatan plasma *low density lipoprotein* (LDL) kolesterol juga dapat menyebabkan berkembangnya aterosklerosis dan berhubungan dengan kejadian IMA.

Tujuan: Untuk menentukan hubungan antara kadar fibrinogen dan LDL kolesterol dengan infark miokard akut.

Metode: Penelitian *cross sectional* yang dilakukan di Rumah sakit Dr. Soetomo Surabaya pada bulan Agustus-November 2015. Pada 67 subjek penelitian dibagi menjadi 49 subjek pada kelompok IMA dan 18 subjek sebagai kontrol. Usia, jenis kelamin, diagnosa, dan manajemen dievaluasi sebagai karakteristik dasar subjek. Pada masing-masing kelompok dilakukan pemeriksaan kadar fibrinogen dan LDL kolesterol. Kemudian dianalisa secara statistik menggunakan program SPSS.

Hasil: Didapatkan 47 laki-laki dan 20 wanita yang diteliti sebagai subjek penelitian. Pada kelompok IMA, 28 pasien menjalani prosedur revaskularisasi dengan strategi PCI dan trombolitik. Analisis statistik menunjukkan perbedaan bermakna ($P < 0,05$) antara kadar fibrinogen dan LDL kolesterol antara pasien IMA dengan kontrol. Juga terdapat hubungan yang bermakna antara kadar fibrinogen dengan LDL kolesterol pada subjek penelitian.

Kesimpulan: Fibrinogen berhubungan dengan risiko IMA, seperti juga LDL kolesterol. Peningkatan fibrinogen ditunjukkan pada hampir seluruh kejadian IMA. Kadar fibrinogen dan LDL kolesterol juga lebih tinggi pada pasien dengan IMA dibandingkan tanpa IMA. Uji statistik menunjukkan sebuah hubungan antara kadar fibrinogen dan LDL kolesterol dengan IMA.

Kata Kunci: Kadar fibrinogen, kadar LDL kolesterol, Infark miokard akut

ABSTRACT

CORRELATION BETWEEN FIBRINOGEN AND *LOW DENSITY LIPOPROTEIN* (LDL) CHOLESTEROL LEVELS WITH ACUTE MYOCARDIAL INFARCTION**Imam Sulestiyo, J. Nugroho EP**

Background : Fibrinogen has been identified as a risk factor for cardiovascular disease especially acute myocardial infarction (AMI). Role of elevated fibrinogen in thrombosis suggests that it may be on the causal pathway for their effect. Elevated Low density lipoprotein (LDL) cholesterol plasma also can induce development of atherosclerosis and associated with AMI events.

Objectives: To determine correlation between fibrinogen and low density lipoprotein cholesterol levels with acute myocardial infarction.

Methods: Cross sectional study in Dr. Soetomo Hospital Surabaya on August-November 2015. In 67 subjects were divided into 49 subjects with acute myocardial infarction and 18 subjects as control. Evaluating at age, sex, diagnose, and management as a baseline characteristics. In each of groups were measured fibrinogen and LDL cholesterol levels. The statistical analysis was done with the software packages SPSS.

Result: 47 males and 20 females were studied. In AMI subjects, 28 patients underwent revascularization procedure with PCI and thrombolytic strategy. The statistic analysis revealed significant differences ($P < 0,05$) between plasma fibrinogen and LDL cholesterol levels at AMI patient than control. Significant correlation also showed between fibrinogen levels with LDL cholesterol levels on subjects.

Conclusions: Fibrinogen was associated with AMI risk factors as well as LDL cholesterol. Elevation of fibrinogen were revealed almost of all AMI events. Also, fibrinogen and LDL cholesterol levels were higher among subjects with AMI compared with those without disease. The statistic test showed an association between fibrinogen and LDL cholesterol levels with AMI.

Keyword: Fibrinogen levels, LDL cholesterol levels, Acute myocardial infarction