

**HUBUNGAN KADAR KOLESTEROL TOTAL DENGAN KADAR ENZIM JANTUNG
NT-PROBNP PADA PASIEN GAGAL JANTUNG DI RUMAH SAKIT JANTUNG
BINAWALUYA JAKARTA TIMUR PERIODE JANUARI – APRIL 2016**

Hirari Fattah Yasfi¹, Endah Purnamasari²

1. Mahasiswa, Fakultas Kedokteran, Universitas YARSI

2. Dosen bagian Patologi Klinik, Fakultas Kedokteran, Universitas YARSI

ABSTRAK

Latar Belakang: Gagal jantung adalah kondisi kronik progresif yang mempengaruhi kekuatan otot jantung untuk memompa darah. Gagal jantung merupakan masalah kesehatan dengan angka mortalitas dan morbiditas tinggi, sehingga diperlukan alat pendeteksi yang baik salah satunya adalah enzim jantung NT-proBNP. Kolesterol merupakan salah satu penyebab gagal jantung, namun peran kolesterol saat sudah terjadi gagal jantung belum sepenuhnya diketahui.

Tujuan: Untuk mengetahui hubungan kadar kolesterol total dengan kadar enzim jantung NT-proBNP pada pasien gagal jantung di Rumah Sakit Jantung Binawaluya Jakarta periode Januari – April 2016.

Metode: Metode penelitian menggunakan metode analitik *cross sectional*. Jumlah sampel yang didapatkan sebanyak 51 sampel dengan kriteria terdiagnosis gagal jantung sebelumnya dan kontrol secara rutin. Data penelitian berupa data sekunder yaitu hasil laboratorium Rumah Sakit Jantung Binawaluya. Metode analisis yang digunakan adalah univariat dan bivariat. Metode analisis bivariat menggunakan *Pearson*.

Hasil: Hasil penelitian menunjukkan rerata kadar kolesterol total adalah 166,78 mg/dL (45,64). Median dari kadar NT-proBNP adalah 426 ng/L (21,2 - 10.886). Pada hasil statistik hubungan kadar kolesterol total dengan NT-proBNP memiliki nilai $p = 0,135$ ($p > 0,05$) yang menunjukkan tidak terdapat hubungan yang bermakna. Namun memiliki nilai korelasi sebesar $-0,212$ yang berarti ada kecenderungan jika nilai kolesterol total meningkat maka nilai NT-proBNP menurun walaupun kekuatannya lemah.

Kesimpulan: Tidak terdapat hubungan antara kadar kolesterol total dengan kadar NT-proBNP pada pasien gagal jantung di Rumah Sakit Jantung Binawaluya Jakarta Timur periode Januari – April 2016. Hal tersebut dapat disebabkan oleh keterbatasan penelitian yaitu periode penelitian yang pendek (hanya 4 bulan) dengan sampel yang kurang banyak, dan kriteria inklusi eksklusi yang kurang spesifik.

Kata Kunci: *Kolesterol Total, NT-proBNP, N Terminal pro Brain Natriuretic Peptide, Gagal Jantung*

THE ASSOCIATION BETWEEN TOTAL CHOLESTEROL LEVEL AND CARDIAC ENZYME NT-PROBNP LEVEL IN HEART FAILURE PATIENTS ON BINAWALUYA CARDIAC HOSPITAL EAST JAKARTA DURING JANUARY – APRIL 2016

Hirari Fattah Yasfi¹, Endah Purnamasari²

1. Undergraduate Student, Faculty of Medicine, YARSI University

2. Lecturer on Pathology Clinic Department, Faculty of Medicine, YARSI University

ABSTRACT

Background: Heart failure is a progressive chronic condition which affect the strength of heart muscle to pump blood. Heart failure is a problematic health condition with high mortality and morbidity rate, which needs good detection measurement such as NT-proBNP cardiac enzyme. Cholesterol is one of the etiology for heart failure, but its effect when a heart failure already happened is yet to be known.

Objective: To identify the association between total cholesterol level and cardiac enzyme NT-proBNP level in heart failure patients on Binawaluya Cardiac Hospital East Jakarta during January – April 2016.

Method: Methodological for this research is using cross sectional analytical methods. The amount of sample obtained is 51 samples with following criteria: already diagnosed as heart failure and do routine control. The research data is a secondary data from laboratory of Binawaluya Cardiac Hospital. Analytical method used is univariate and bivariate, with the bivariate method using *Pearson*.

Result: Research conducted shows that the average of total cholesterol level is 166,78 mg/dL (45,64). Median from NT-proBNP level is 426 ng/L (21,2 – 10,886). Statistical result of association between total cholesterol and NT-proBNP level has the amount of $p = 0,135$ ($p > 0,05$) which shows no significant association between the two. Even though it has a correlation point of $-0,212$ which shows a tendency that if the total cholesterol level increases then the NT-proBNP level decreases although it is weak.

Conclusion: There is no correlation between total cholesterol level with NT-proBNP level in heart failure patients on Binawaluya Cardiac Hospital East Jakarta during January – April 2016. It happened because of the research limitations which in this case is the short duration of research (only 4 months) with limited samples, and the inclusion exclusion criteria which is not specific

Keywords : *Total Cholesterol, NT-proBNP, N Terminal Natriuretic Peptide, Heart Failure*