

## HUBUNGAN KADAR KREATININ DARAH DENGAN TINGKAT KEPARAHAN LESI ARTERI KORONER PADA PASIEN YANG MENJALANI ANGIOGRAFI KORONER

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### INTISARI

**Latar Belakang:** Penyakit jantung koroner atau PJK menduduki peringkat kedua penyebab kematian tertinggi di Indonesia dengan persentase 12,9% berdasarkan hasil survei *Sample Registration System* (SRS) pada tahun 2014. Berdasarkan beberapa penelitian, tingginya prevalensi PJK berhubungan erat dengan faktor risiko yang dimiliki oleh seseorang seperti usia, jenis kelamin, diabetes melitus, riwayat merokok, dislipidemia, hipertensi, IMT, dsb. Tingkat keparahan PJK kemungkinan berhubungan dengan disfungsi renal dengan kadar kreatinin darah sebagai salah satu indikatornya. Oleh karena itu, kemungkinan terdapat hubungan antara kadar kreatinin darah dengan keparahan PJK.

**Tujuan:** Mengetahui hubungan antara kadar kreatinin darah dengan tingkat keparahan lesi arteri koroner berdasarkan perhitungan skor Gensini.

**Metode:** Penelitian ini merupakan penelitian analitik observasional dengan rancangan *cross-sectional* (potong lintang) yang dilakukan pada 146 subjek penderita PJK di Instalasi Rawat Jantung RSUP Dr Sardjito yang ditegakkan melalui angiografi koroner dan memenuhi kriteria inklusi serta eksklusi. Analisis bivariat dilakukan dengan uji *Chi Square* menggunakan IBM SPSS Statistic 22.

**Hasil:** Rata – rata usia subjek adalah  $56,65 \pm 8,34$  tahun dengan usia  $<60$  tahun sebanyak 64,4%. 98 subjek memiliki kadar kreatinin normal, 26 diantaranya mengalami PJK ringan, 11 subjek PJK sedang, dan 61 subjek PJK berat. Sedangkan 48 subjek mengalami peningkatan kadar kreatinin darah, dengan 9 diantaranya mengalami PJK ringan, 8 subjek PJK sedang, dan 31 subjek PJK berat. Hasil analisis bivariat dengan uji *Chi Square* memperlihatkan bahwa tidak ada hubungan yang bermakna secara statistik antara kreatinin dengan keparahan lesi arteri koroner ( $p\text{ value} = 0,455$ ).

**Kesimpulan:** Tidak ada hubungan yang bermakna secara statistik antara kadar kreatinin darah dengan keparahan lesi arteri koroner.

**Kata Kunci:** PJK, kadar kreatinin darah, skor Gensini, keparahan lesi arteri koroner.

## THE CORRELATION BETWEEN BLOOD CREATININE CONCENTRATION AND SEVERITY OF CORONARY ARTERY LESION ON THE PATIENT WHO UNDERWENT CORONARY ANGIOGRAPHY

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### ABSTRACT

**Background:** Coronary artery disease (CAD) is the second most cause of death in Indonesia. Based on of SRS (Sample Registration System) survey in 2014, about 12.9% of death in Indonesia are caused by CAD. There are a lot of CAD risk factors, such as age, sex, diabetes mellitus, smoking history, dyslipidemia, hypertension, BMI, etc. Meanwhile, the severity of CAD may have a correlation with renal dysfunction. Based on the study before, blood creatinine concentration is one of the indicators for renal function condition. Therefore blood creatinine concentration may has correlation with severity of CAD.

**Objective:** To determine the correlation between blood creatinine concentration and the severity of coronary artery lesion which was measured by Gensini score.

**Methods:** This study is an analytical observational study using a cross-sectional design carried out on 146 subjects suffering from CAD which were diagnosed by coronary angiography. The subjects of this research were the patient who were treated in cardiac care installation RSUP Dr. Sardjito and fulfills the inclusion and exclusion criteria. Bivariate analysis was done by the Chi-Square test using IBM SPSS Statistic 22.

**Result:** The average age of the subject in this study is  $56,65 \pm 8,34$  years old and mostly <60 years old (64,4%). A total of 98 subjects have normal blood creatinine concentration, 26 of them have mild CAD, 11 subjects have moderate CAD, and 61 subjects have severe CAD. Meanwhile, the 48 subjects have an increased blood creatinine concentration, whose 9 of them have mild CAD, 8 subjects have moderate CAD, and 31 subjects have severe CAD. Chi-Square test showed that there is no significant correlation between blood creatinine concentration and severity of CAD statistically ( $p\text{-value} = 0,455$ ).

**Conclusion:** There is no significant correlation between blood creatinine concentration and the severity of coronary artery lesion.

**Keywords:** CAD, blood creatinine concentration, Gensini score, severity of coronary artery lesion.