

INTISARI

Latar belakang: Ginjal *transplant* diharapkan segera berfungsi setelah operasi transplantasi, ditandai dengan penurunan kreatinin serum dan peningkatan *urine output*. Waktu iskemik merupakan salah satu faktor yang mempengaruhi fungsi ginjal *transplant*, *Creatinine Reduction Ratio day 2* (CRR2) merupakan parameter potensial yang dapat mewakili fungsi ginjal *transplant*
Tujuan Penelitian: Mengetahui hubungan waktu iskemik dengan fungsi ginjal *transplant* dini pada operasi *transplantasi* donor hidup yang dinilai dengan *Creatinine Reduction Ratio day 2* (CRR2)

Metode: Penelitian menggunakan metode observasional kohort retrospektif dengan sampel dari rekam medis seluruh pasien paska *transplantasi* ginjal di RSUP Dr. Sardjito periode Januari 2017-Desember 2024. Uji normalitas dengan uji Kolmogorov-Smirnov, dilanjutkan dengan uji korelasi Spearman, kemudian dicari *cut off* waktu iskemik dengan spesifisitas dan transplantasi tertinggi. Waktu iskemik dan variabel lain yang dapat mempengaruhi CRR2 dianalisis bivariat, dilanjutkan analisis multivariat untuk mengetahui faktor apa saja yang mempengaruhi fungsi ginjal *transplant*
Hasil: Total prosedur *transplantasi* ginjal dari tahun 2017 sampai 2024 sebanyak 91 sampel, sebanyak 82 pasien memenuhi kriteria inklusi, 1 pasien eksklusi karena rejeksi hiperakut, 6 pasien tidak memiliki data waktu iskemik, 2 pasien *Outlier*. Dari 82 sampel rata-rata usia di $38,65 \pm 12,34$ tahun dengan proporsi pasien laki-laki 75,6% dan perempuan 24,4%, BMI pasien dengan rerata $23,64 \pm 4,72$ kg/m². Tidak terdapat hubungan signifikan ($r = -0,015$ dengan $p = 0,891$) antara waktu iskemik dengan CRR2. Variabel DM ($p = 0,017$, OR = 5,079) dan KS2 ($p = 0,01$, OR = 2,249) memiliki hubungan signifikan dengan fungsi ginjal *transplant*. Tidak terdapat hubungan signifikan antara variabel BMI ($p = 0,148$, OR 0,886) Inotropik ($p = 0,734$, OR 1,235) GFR2 ($p = 0,404$ OR 1,019) UOP 2 ($p = 0,489$ OR 0,896) dengan fungsi ginjal *transplant*

Kesimpulan: Tidak terdapat hubungan signifikan antara waktu iskemik dengan fungsi ginjal *transplant* dini pada operasi transplantasi donor hidup di RSUP Dr. Sardjito.

Kata kunci: PGK, *transplantasi* ginjal donor hidup, Waktu iskemik, *Creatinine Reduction Ratio day 2*

ABSTRACT

Background: A transplanted kidney is expected to function soon after the surgery, marked by a decrease in serum creatinine and an increase in urine output. Ischemic time is one of the factors that affect kidney transplant function, and Creatinine Reduction Ratio on day 2 (CRR2) is a potential parameter that may represent kidney transplant function.

Objective: To determine the relationship between ischemic time and early kidney transplant function in living donor transplant surgeries, assessed by Creatinine Reduction Ratio on day 2 (CRR2).

Method: observational cohort retrospective with samples from the medical records of all kidney transplant procedures at Sardjito Hospital from January 2017 to December 2024. Normality testing was performed using the Kolmogorov-Smirnov test, followed by Spearman correlation testing. The cutoff ischemic time with the highest specificity and sensitivity was then determined. Ischemic time and other variables that may affect CRR2 were analyzed bivariately, followed by multivariate analysis to identify factors that influence kidney transplant function.

Results: The total procedures was 91 samples, of which 82 patients met the inclusion criteria. One patient was excluded due to hyperacute rejection, six patients had no ischemic time data, and two patients were outliers. From the 82 samples, the average age was 38.65 ± 12.34 years, with 75.6% male and 24.4% female. The average BMI was 23.64 ± 4.72 kg/m². There is no significant correlation ($r = -0.015$, $p = 0.891$) between ischemic time with CRR2. Variables such as DM ($p = 0.017$, OR = 5.079) and KS2 ($p = 0.01$, OR = 2.249) had a significant relationship with kidney transplant function, while variables such as BMI ($p = 0.148$, OR = 0.886), Inotropics ($p = 0.734$, OR = 1.235), GFR2 ($p = 0.404$, OR = 1.019), and UOP 2 ($p = 0.489$, OR = 0.896) did not show a significant relationship with graft function.

Conclusion: There is no significant correlation between ischemic time and early graft function in living donor kidney transplant surgery at Sardjito Hospital.

Keywords: Living donor kidney transplant, Ischemic time, Creatinine Reduction Ratio day 2