

# Kesintasan 1 tahun resipien transplantasi ginjal di RSUPN Cipto Mangunkusumo = One year survival of kidney transplant recipients in Cipto Mangunkusumo Hospital

Ferry Valerian Harjito, author

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## Abstrak

[Latar Belakang Transplantasi ginjal adalah modalitas terapi pengganti ginjal yang paling baik bagi pasien dengan Penyakit Ginjal Tahap Akhir (PGTA). Saat ini di Indonesia transplantasi ginjal dengan donor hidup mulai semakin sering dilakukan, terutama di RSUPN Cipto Mangunkusumo, di mana dalam beberapa tahun terakhir lebih dari 50% kasus transplantasi ginjal di Indonesia dilakukan di rumah sakit ini. Walaupun demikian, data mengenai hasil transplantasi di Indonesia, baik kesintasan 1 tahun graft maupun pasien, serta faktor yang diduga mempengaruhinya masih belum ada. Diharapkan hasil transplantasi di rumah sakit ini dapat menggambarkan hasil secara keseluruhan di Indonesia.

Metode Studi kohort retrospektif pada resipien transplantasi ginjal di RSUPN-CM dari Januari 2010 hingga Mei 2014. Data didapatkan dari penelusuran rekam medis serta menghubungi pasien secara langsung.

Masing-masing resipien diikuti sejak tanggal transplantasi hingga kematian atau Mei 2015. Proporsi kesintasan graft dan pasien pada 1 tahun post transplantasi dan pada akhir studi didokumentasikan. Kurva Kaplan-Meier digunakan untuk menggambarkan kesintasan pasien secara keseluruhan. Studi deskriptif dilakukan dengan melihat perbedaan proporsi variabel serta perbedaan rerata atau median pada pasien yang mengalami kegagalan graft 1 tahun serta tidak, serta pasien yang bertahan hidup atau meninggal.

Hasil Berdasarkan hasil consecutive total sampling didapatkan 157 resipien yang menjalani transplantasi ginjal di RSUPN-CM, 137 resipien di antaranya memenuhi kriteria penelitian, seluruhnya mendapatkan ginjal dari donor hidup. Usia resipien rata-rata adalah  $47,9 \pm 13,9$  tahun, rerata IMT  $22,8 \pm 3,7$  kg/m<sup>2</sup>, dan proporsi resipien dengan diabetes 35,8%. Didapatkan 7 pasien mengalami disfungsi graft primer (kegagalan transplantasi), sehingga 130 pasien diikuti untuk melihat kesintasan jangka panjang. Pada akhir tahun pertama, didapatkan angka death-censored graft survival adalah 95,4%, all-cause graft survival 85,4%, kesintasan pasien 88,5%, dan death with a functioning graft sebesar 10%. Pada akhir studi, didapatkan angka kesintasan tersebut berturut-turut adalah 94,6%, 80%, 82,3%, dan 14,6%, dengan median waktu pengamatan 24 bulan (1 ? 64 bulan). Kurva Kaplan Meier menunjukkan angka mortalitas tertinggi didapatkan pada bulan-bulan awal post transplantasi. Kegagalan graft dan kematian didapatkan lebih banyak pada resipien yang berusia lebih tua, mengidap diabetes melitus, serta memiliki indeks komorbiditas yang tinggi. Penyebab kematian utama adalah infeksi (11,5%) diikuti dengan kejadian kardiovaskular (3,8%).

Simpulan Death-censored graft survival 1 tahun resipien transplantasi ginjal di Indonesia sudah sangat memuaskan. Angka death with functioning graft masih cukup tinggi, sehingga menurunkan all-cause graft survival dan kesintasan pasien 1 tahun. Walaupun demikian, secara keseluruhan hasil ini masih sebanding dengan negara-negara berkembang lainnya.;Background Kidney transplant is established as the preferred modality for end stage renal disease patients. Living donor kidney transplant is increasingly popular in Indonesia, especially in Cipto Mangunkusumo Hospital, comprising more than 50% of all transplant procedures performed in Indonesia. However, data regarding one-year graft and patient survival in Indonesia is still scarce. This single-center study is hoped to represent the characteristics and results of graft and

patient survival of living donor kidney transplant in Indonesia.

**Methods** A retrospective cohort study with total consecutive sampling is performed on all kidney transplant recipients in Cipto Mangunkusumo Hospital from January 2010 until May 2014. Data is acquired by analysing medical records and contacting patients directly. Each recipient is followed from the day of transplant until death or May 2015, whichever comes first. One-year graft and patient survival is documented. Kaplan-Meier Curve is used to describe patient survival until the end of study. Descriptive studies on risk factors of graft and patient survival is also conducted, using differences in proportions, means, and medians appropriately.

**Results** Within the timeframe there are 157 recipients of living donor kidney transplants, 137 of which fulfill the inclusion criteria. The mean age is  $47.9 \pm 13.9$  years, mean BMI is  $22.8 \pm 3.7$  kg/m<sup>2</sup>, and 35.8% of all recipients are diabetics. Primary non-function/early transplant failure is present in 7 patients, so that 130 recipients are included for long term survival descriptions. In the end of the first year post transplant, death-censored graft survival is 95.4%, all-cause graft survival is 85.4%, patient survival is 88.5%, and death with a functioning graft is 10%. By the end of the study, the corresponding survival results are 94.6%, 80%, 82.3%, and 14.6%, respectively, with a median observation time of 24 months (1 ? 64 months). Kaplan-Meier curve showed that the mortality rate is higher in the early months after transplant. More deaths and graft failures are found in older and diabetic recipients, as well as those with a high comorbidity index. The main causes of death are infections (11.5%) and cardiovascular diseases (3.5%).

**Conclusions** The outcome of one-year death-censored graft survival in Indonesia is very satisfactory. The incidence of death with functioning graft is relatively high, causing a decline in one-year patient survival and all-cause graft survival. However, the overall results are still comparable to other developing countries;**Background** Kidney transplant is established as the preferred modality for end stage renal disease patients. Living donor kidney transplant is increasingly popular in Indonesia, especially in Cipto Mangunkusumo Hospital, comprising more than 50% of all transplant procedures performed in Indonesia. However, data regarding one-year graft and patient survival in Indonesia is still scarce. This single-center study is hoped to represent the characteristics and results of graft and patient survival of living donor kidney transplant in Indonesia.

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