

PREDIKTOR KEMATIAN PENYAKIT GINJAL TAHAP AKHIR PADA ANAK

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INTISARI

Latar belakang: Penyakit ginjal tahap akhir (PGTA) merupakan tahap lanjut penurunan fungsi ginjal yang menetap dan mengancam jiwa apabila tidak ditangani dengan baik. Belum banyaknya penelitian mengenai luaran PGTA anak dan faktor yang mempengaruhi luaran atau kematian, khususnya di Indonesia, belum cukup tersedia sehingga perlu penelitian mengenai hal tersebut.

Tujuan: Mengetahui kejadian kematian dan faktor prediktor kematian PGTA pada anak.

Metode: Penelitian dilakukan secara retrospektif mengambil data rekam medis RSUP Dr. Sardjito Yogyakarta pada semua anak PGTA usia 1-18 tahun, mulai Januari 2010 hingga Mei 2018. Variabel etiologi penyakit ginjal, usia saat diagnosis, jenis kelamin, modalitas dialisis, kadar hemoglobin serum, status tekanan darah, kadar albumin serum, status gizi, dan status kardiomiopati dianalisis dan dipresentasikan sebagai angka kesintasan, *hazard ratio* (HR) dan interval kepercayaan 95%.

Hasil: Sebanyak 57% (29/51) subyek penelitian meninggal, dengan peluang kesintasan 1 tahun pertama sebesar 47%. Median waktu kesintasan subyek selama 30 bulan (IQR 3-66 bulan). Etiologi terbanyak adalah bukan CAKUT (78%), jenis kelamin didominasi laki-laki (2:1), dan median usia saat diagnosis adalah 12 tahun (IQR 9-15 tahun). Faktor prediktor kematian adalah modalitas dialisis konservatif (HR 12,06; IK 95% 3,29-44,24). Kontribusi modalitas dialisis dan kadar albumin serum mempengaruhi hasil variabel malnutrisi. Faktor prediktor lain tidak terbukti berbeda bermakna secara statistik.

Kesimpulan: Kesintasan 1 tahun PGTA anak sebesar 47%. Modalitas dialisis konservatif sebagai prediktor kematian. Variabel etiologi penyakit ginjal, usia saat diagnosis PGTA, jenis kelamin, kadar hemoglobin serum, status tekanan darah, kadar albumin serum, dan status kardiomiopati tidak terbukti sebagai prediktor kematian PGTA anak. Malnutrisi sebagai faktor prediktor kematian PGTA anak perlu diteliti lebih lanjut.

Kata kunci: prediktor, kematian, penyakit ginjal tahap akhir, anak, Indonesia

PREDICTORS OF DEATH IN END-STAGE RENAL DISEASE CHILDREN

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ABSTRACT

Background: End-stage renal disease (ESRD) is an advanced permanent stage of kidney function reduction that may be life-threatening if not properly managed. Lack of research in children's ESRD outcomes and factors affecting the outcomes make the need to do the research.

Objectives: To understand the ESRD mortality and to determine the predictors of ESRD outcomes in children.

Methods: Retrospective study using medical record in Dr. Sardjito tertiary hospital in Yogyakarta was performed for children aged 1-18 years admitted between January 2010 and May 2018. Sex, age at ESRD diagnosis, renal etiology, dialysis modality, serum hemoglobin, blood pressure status, albumin serum, nutritional status, and cardiomyopathy status were analyzed as survival rate and function, hazard ratio, and 95% of confidence interval.

Results: Of 51 patients diagnosed as ESRD, 29 (57%) did not survive, as 1-year survival probability was 47%. The overall median survival time was 30 months (IQR 3-66 months). The most common renal etiology was non CAKUT (78%) and gender was dominantly male (2:1), with median of age at diagnosis was 12 years (IQR 9-15 years). Mortality predictor was conservative renal replacement therapy (HR 12.06; 95% CI 3.29-44.24). Contribution of dialysis modality and serum albumin affected the result of malnutrition variable. Other mortality predictors were not statistically significant proved.

Conclusion: Pediatric ESRD 1-year survival was 47%. Conservative renal replacement therapy was proved as mortality predictor. Renal etiology, age at ESRD diagnosis, gender, serum hemoglobin, blood pressure status, albumin serum, and cardiomyopathy status were not proved as predictors of mortality in ESRD children. Further study about malnutrition as mortality predictor factor is necessary.

Keywords: predictor, death, end stage renal disease, child, Indonesia