

Faktor Prediktor Acute Kidney Injury pada Pasien COVID-19 yang dirawat di ICU RSUPN dr. Cipto Mangunkusumo Jakarta = Predictor Factors of Acute Kidney Injury in Patients COVID-19 at the ICU RSUPN dr. Cipto Mangunkusumo Jakarta

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Abstrak

Latar Belakang : Insiden Acute Kidney Injury (AKI) pada pasien coronavirus disease 2019 (COVID-19) yang dirawat di Intensive Care Unit (ICU) yang dilaporkan dari berbagai penelitian adalah 23% sampai dengan 81% dengan mortalitas yang makin tinggi dengan semakin tingginya serum kreatinin. Terdapat perbedaan komorbiditas yang mendasari populasi yang diperiksa, serta variasi dalam praktik dan metode diagnosis dan pelaporan AKI. Evaluasi dini pemantauan fungsi hati, ginjal, serta parameter hematologi, sangat penting untuk memprediksi perkembangan COVID-19. Berdasarkan hal diatas perlu diketahui variabel apa yang dapat mempengaruhi terjadinya AKI.

Tujuan : Tujuan penelitian ini adalah menganalisis insiden AKI pada pasien COVID-19 yang dirawat di ICU RSCM dan menganalisis pengaruh umur, jenis kelamin, komorbid, kreatinin, ureum, trombosit, leukosit, nilai Neutrophil Lymphocyte Ratio (NLR), C- Reactive Protein (CRP), obat vasoaktif dan obat nefrotoksik terhadap angka kejadian AKI pada pasien COVID-19 yang dirawat di ICU RSCM.

Metode : Penelitian ini merupakan studi observasional retrospektif dengan desain case control study. Data yang digunakan adalah data sekunder dari rekam medis pasien COVID-19 yang dirawat di ICU RSCM. Kriteria penerimaan adalah pasien dengan usia

18 tahun dan terkonfirmasi COVID-19 dengan RT-PCR positif. Kriteria penolakan adalah pasien dengan riwayat transplantasi ginjal, dan pasien Chronic Kidney Disease (CKD) gagal ginjal yang menjalani dialisis. Kriteria pengeluan adalah pasien dengan data rekam medis yang tidak lengkap.

Hasil : Dari 370 pasien yang terkonfirmasi COVID-19 yang dirawat di ICU RSCM, 152 pasien memenuhi kriteria inklusi dari 148 subjek yang direncanakan. Hasil analisis bivariat didapatkan usia, komorbid, ureum, kreatinin dan obat vasoaktif mempunyai perbedaan bermakna terhadap angka kejadian AKI. Setelah dilakukan analisis multivariat regresi logistik didapatkan komorbid (odd ratio 2,917; 95 % confidence interval, 1,377 – 6,179; p value 0,005) dan obat vasoaktif (odd ratio 2,635; 1,226 – 5,667, p value 0,013) merupakan faktor prediktor AKI pada pasien COVID-19 yang dirawat di ICU RSUPN dr. Cipto Mangunkusumo Jakarta.

Kesimpulan : Insiden AKI pada pasien COVID-19 yang dirawat di ICU RSUPN Dr. Cipto Mangunkusumo Jakarta adalah 30,9%. Komorbid dan obat vasoaktif merupakan faktor prediktor AKI pada pasien COVID-19 yang dirawat di ICU RSUPN dr Cipto Mangunkusumo Jakarta.

.....Background: The incidence of Acute Kidney Injury (AKI) in COVID-19 patients treated in the Intensive

Care Unit (ICU) reported from various studies is 23% to 81%, with higher mortality with higher serum creatinine. There are differences in the underlying comorbidities of the populations examined, as well as variations in practice and methods of diagnosing and reporting AKI. Early evaluation and monitoring of liver and kidney function, as well as hematological parameters, is very important to predict the development of COVID-19. By examining the predictor factors for the incidence of AKI in COVID-19 patients treated in the RSCM ICU, were there any predictor factors that were different from previous studies.

Purpose: The aim of this study was to analyze the incidence of AKI in COVID-19 patients treated at the RSCM ICU and to analyze the effect of age, gender, comorbidities, creatinine, urea, platelets, leukocytes, Neutrophil Lymphocyte Ratio (NLR), CRP, vasoactive drugs, and nephrotoxic drugs on the incidence of AKI in COVID-19 patients treated in the RSCM ICU.

Methods: This research is a retrospective observational study with a case-control study design. The data to be used is secondary data from the medical records of COVID-19 patients treated in the RSCM ICU. The acceptance criteria are patients aged 18 years and confirmed COVID-19 by positive RT-PCR. The criteria for rejection were patients with a history of kidney transplantation, and CKD patients undergoing dialysis. The exclusion criteria were patients with incomplete medical record data.

Results: Of the 370 patients with confirmed COVID-19 who were treated at the RSCM ICU, 152 patients met the inclusion criteria of the 148 planned subjects. The results of bivariate analysis showed that age, comorbidities, urea, creatinine, and vasoactive drugs had significant differences in the incidence of AKI. After multivariate logistic regression analysis, we found comorbid (OR 2.917; 95% CI, 1.377 – 6.179; p value 0.005) and vasoactive drugs (OR 2.635; 1.226 – 5.667, p value 0.013) is a predictor factor for AKI in COVID-19 patients treated at the ICU RSUPN Dr. Cipto Mangunkusumo Jakarta.

Conclusion: Incidence of AKI in COVID-19 patients treated at ICU RSUPN Dr. Cipto Mangunkusumo Jakarta is 30.9%. Co-morbidities and vasoactive drugs are predictors of AKI in COVID-19 patients treated at the ICU RSUPN Dr. Cipto Mangunkusumo Jakarta.