INTISARI

Latar Belakang: Diabetes melitus dan hipertensi merupakan komorbid yang sering dijumpai pada pasien COVID-19. Diabetes dapat menurunkan imunitas tubuh dan meningkatkan laju replikasi virus, serta berhubungan dengan masalah vaskular. Hipertensi merupakan salah satu komorbid diabetes dengan morbiditas dan mortalitas yang tinggi.

Tujuan: Mengetahui hubungan hipertensi terhadap kematian pasien COVID-19 dengan diabetes melitus tipe 2 di RSUP Dr Sardjito

Metode: Studi observasional dengan desain penelitian kohort retrospektif, menggunakan data *registry* COVID-19 di RSUP Dr Sardjito periode Maret 2020-Juli 2021. Dipilih pasien COVID-19 dengan diabetes melitus tipe 2 yang memiliki hipertensi dan yang tidak memiliki hipertensi di RSUP Dr Sardjito dan dikumpulkan data angka kematian, usia, jenis, kelamin, komorbid lain, derajat keparahan dan *length of stay*. Data diolah menggunakan SPSS, dalam model analisis univariat, bivariat, dan multivariat.

Hasil: Hasil analisis multivariat menggunakan regresi logistik didapatkan bahwa hipertensi, usia, dan penyakit jantung iskemik tidak memiliki hubungan yang signifikan terhadap kematian pasien COVID-19 dengan diabetes melitus tipe 2. Variabel yang memiliki kekuatan terbesar sebagai prediktor kematian pasien COVID-19 dengan diabetes melitus tipe 2 adalah ARDS dengan risiko kematian 20,8 kali lebih tinggi dibanding tanpa ARDS. Pasien dengan gagal ginjal berisiko mengalami kematian 2,7 kali lebih tinggi dibanding tanpa gagal ginjal. Penambahan *length of stay* (LOS) 1 hari perawatan mengurangi risiko kematian 16,3%.

Kesimpulan: Hipertensi tidak memiliki hubungan yang signifikan sebagai prediktor kematian pada pasien COVID-19 dengan diabetes melitus tipe 2 di RSUP Dr Sardjito. Prediktor kematian yang signifikan pada penelitian ini adalah ARDS, gagal ginjal, dan berhubungan dengan *length of stay* (LOS).

Kata Kunci: Mortalitas, Covid-19, Diabetes Melitus Tipe 2, Hipertensi, ARDS, gagal ginjal, *length of stay*.

ABSTRACT

Background: Diabetes mellitus and hypertension are co-morbidities that are often found in COVID-19 patients. Diabetes can reduce the body's immunity and increase the rate of viral replication, and is associated with vascular problems. Hypertension is one of the comorbid diabetes with high morbidity and mortality.

Purpose: To determine the relationship between hypertension and the death of COVID-19 patients with type 2 diabetes mellitus at Dr Sardjito General Hospital.

Method: Observational study with a retrospective cohort study design, using COVID-19 registry data at Dr Sardjito General Hospital for the period March 2020-July 2021. COVID-19 patients with type 2 diabetes mellitus who had hypertension and those who did not have hypertension were selected at Dr Sardjito General Hospital and Collected data on mortality, age, sex, other comorbidities, severity and length of stay. Data were processed using SPSS, in univariate, bivariate, and multivariate analysis models.

Result: the results of multivariate analysis using logistic regression found that hypertension, age, and ischemic heart disease did not have a significant association with the death of COVID-19 patients with type 2 diabetes mellitus. The variable that had the greatest power as a predictor of death in COVID-19 patients with diabetes mellitus type 2 is ARDS with a risk of death 20.8 times higher than without ARDS. Patients with kidney failure are at risk of dying 2.7 times higher than those without kidney failure. The addition of length of stay (LOS) 1 day of treatment reduces the risk of death by 16.3%.

Conclusion: Hypertension has no significant relationship as a predictor of death in COVID-19 patients with type 2 diabetes mellitus at Dr Sardjito General Hospital. Significant predictors of death in this study were ARDS, kidney failure, and were associated with length of stay (LOS).

Keywords: Mortality, Covid-19, Diabetes Mellitus Type 2, Hypertension, ARDS, kidney failure, length of stay.