Hubungan Diabetes Melitus Tipe 2 dengan Kematian COVID-19 di RSUD Al Ihsan Provinsi Jawa Barat

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Abstrak

Latar Belakang. Tingginya prevalensi diabetes di populasi menyebabkan diabetes menjadi salah satu penyakit penyerta yang banyak diderita oleh pasien COVID-19. Orang dengan diabetes menghadapi kemungkinan lebih tinggi untuk mengalami komplikasi serius dari COVID-19 hingga kematian. Penelitian ini bertujuan untuk mengetahui perbedaan probabilitas kesintasan pasien COVID-19 dengan diabetes melitus tipe 2 dan mengetahui hubungan diabetes melitus tipe 2 dengan kematian COVID-19 di RSUD Al Ihsan Provinsi Jawa Barat.
Metode. Penelitian ini menggunakan desain kohort retrospektif. Populasi dalam penelitian ini yaitu pasien COVID-19 yang dirawat di RSUD Al Ihsan pada periode Maret 2020 sampai dengan 31 Desember 2021 dengan kriteria inklusi merupakan pasien konfirmasi COVID-19 melalui pemeriksaan Polymerase Chain Reaction (PCR) berusia lebih dari sama dengan 18 tahun. Perbedaan probabilitas kesintasan didapatkan dari analisis kesintasan dengan kaplan meier. Analisis Cox Proporsional Hazard digunakan untuk mengetahui hubungan diabetes melitus tipe 2 dengan kematian COVID-19.
Hasil. Sebanyak 308 pasien konfirmasi COVID-19 terlibat dalam penelitian ini. Selama 21 hari pengamatan, probabilitas kesintasan pasien COVID-19 dengan diabetes melitus tipe 2 lebih rendah dibandingkan dengan tanpa diabetes melitus tipe 2 (71,24% vs 84,13%). Sampai akhir pengamatan selama 49 hari, probabilitas kesintasan pasien COVID-19 dengan diabetes melitus tipe 2 menurun dan berbeda dengan pasien COVID-19 tanpa diabetes melitus tipe 2 yang mana probabilitas kesintasannya 48,98% vs 84,13% dengan nilai p 0,0056. Terdapat hubungan yang signifikan secara statistik antara diabetes melitus tipe 2 dengan kematian COVID-19 setelah dikontrol dengan variabel confounder yaitu umur, gejala batuk, ARDS, vaksinasi, gagal ginjal kronis, penggunaan ventilator, terapi antivirus dan persentase BOR Isolasi COVID-19 saat admisi. Hazard ratio adjusted hubungan diabetes melitus tipe 2 dengan kematian COVID-19 pada model akhir analisis multivariat sebesar 2,676 (95% IK 1,24-5,73).
Kesimpulan. Probabilitas kesintasan pasien COVID-19 dengan diabetes melitus tipe 2 lebih rendah dibandingkan dengan pasien COVID-19 tanpa diabetes melitus tipe 2.
Diabetes melitus tipe 2 meningkatkan resiko kematian pada pasien COVID-19.<hr />Introduction. The high prevalence of diabetes in the population causes diabetes to become one of the comorbidities that many COVID-19 patients suffer from. Patients with diabetes have a higher risk of experiencing serious complications from COVID-19 and even death. This study aims to determine the difference in survival probability of COVID-19 patients with type 2 diabetes mellitus and to determine the relationship between type 2 diabetes mellitus and COVID-19 mortality at Al Ihsan Hospital, West Java Province.
Methods. This study used a retrospective cohort study design. The population of study were COVID-19 patients who were treated at Al Ihsan Hospital in the period March 2020 to December 31, 2021 with inclusion criteria being confirmed as COVID-19 patients through Polymerase Chain Reaction (PCR) examination and aged ≥ 18 years. Differences in survival probability were obtained from survival analysis with Kaplan-Meier. Cox Proportional Hazard analysis was used to determine the relationship between type 2 diabetes mellitus and COVID-19 mortality.
Results. Results

indicated that a total of 308 confirmed positive COVID-19 patients were involved in this study. During the 21 days of observation, survival probability of COVID-19 patients with type 2 diabetes mellitus was lower than those without type 2 diabetes mellitus (71.24% vs. 84.13%). Until the end of the 49-day observation, survival probability of COVID-19 patients with type 2 diabetes mellitus decreased and differed from that of COVID-19 patients without type 2 diabetes mellitus which the survival probability was 48.98% vs. 84.13% ($p = 0.0056$). There was a statistically significant relationship between type 2 diabetes mellitus and COVID-19 mortality after controlling for confounder variables, age, cough symptoms, ARDS, vaccination, chronic kidney disease, ventilator use, antiviral therapy and the percentage of Bed Occupation Rate COVID-19 isolation at admission. The hazard ratio adjusted relationship between type 2 diabetes mellitus and COVID-19 mortality in the final model of multivariate analysis was 2,676 (95% CI 1,24-5,73).
Conclusion. It appears that survival probability of COVID-19 patients with type 2 diabetes mellitus is lower than those without type 2 diabetes mellitus. Type 2 diabetes mellitus increases the risk of death in COVID-19 patients.