

## **ABSTRAK**

**Latar Belakang:** Corona Virus Disease (COVID-19) merupakan infeksi disebabkan oleh virus *SARS-COV-2* yaitu virus penyebab masalah pernapasan akut. pertama kasus COVID-19 dikonfirmasi di Wuhan, Provinsi Hubei, China pada Desember 2019 dan dikarenakan laju penularan dan tingkat penularan COVID-19 menyebar secara luar biasa, dan dinyatakan sebagai pandemic global pada tanggal 11 Maret 2020. Disfungsi Liver menjadi salah satu komplikasi pasien COVID-19. Di Indonesia, penelitian tentang pengaruh infeksi COVID-19 terhadap pemeriksaan fungsi liver pada pasien yang mendapat perawatan di ICU dan Non-ICU masih cukup terbatas. Sehingga penelitian dilakukan untuk mengetahui perbedaan parameter fungsi liver pada pasien COVID-19 yang dirawat di ICU dan Non-ICU.

**Tujuan:** Mengetahui perbedaan parameter fungsi liver antara pasien COVID-19 yang dirawat di ICU dan Non-ICU di RSUP Dr. Kariadi Semarang.

**Metode:** Penelitian ini adalah studi observasional analitik dengan rancangan penelitian cross sectional pada pasien COVID-19 di RSUP Dr. Kariadi Semarang. Sampel penelitian ini berasal dari data sekunder rekam medis pasien COVID-19 di RSUP Dr. Kariadi Semarang pada periode januari 2021-desember 2021. 108 sampel didapatkan dengan metode total sampling.

**Hasil:** Data tidak terdistribusi normal. Setelah dilakukan uji *Mann Whitney*, didapatkan perbedaan signifikan/bermakna antara kelompok yang dirawat di ruang ICU dan non-ICU pada variable Neutrofil-Limfosit Rasio (NLR), albumin, PTT, APTT, dan D-dimer dengan nilai signifikan ( $p < 0,05$ ). Sebaliknya, pada variable SGPT, SGOT, Bilirubin direk, Bilirubin indirek, ALP, dan GGT tidak didapatkan perbedaan yang signifikan/bermakna antara kelompok pasien yang dirawat di ICU dengan yang dirawat di non-ICU ( $p > 0,05$ ).

**Kesimpulan:** perbedaan bermakna pada jumlah Neutrofil-Limfosit Rasio (NLR), albumin, PTT, APTT, dan D-dimer yang dirawat di ruang ICU dan non-ICU RSUP Dr. Kariadi Semarang dan Tidak terdapat perbedaan bermakna pada jumlah SGPT, SGOT, Bilirubin direk,

Bilirubin indirek, ALP, dan GGT yang dirawat di ruang ICU dan non-ICU RSUP Dr. Kariadi Semarang.

**Kata kunci:** Perbandingan, pemeriksaan fungsi liver, ICU, non-ICU.

## ABSTRACT

**Background:** Corona Virus Disease (COVID-19) is an infection caused by the SARS-CoV-2 virus, which is a virus that causes acute respiratory problems. The first case of COVID-19 was confirmed in Wuhan, Hubei Province, China in December 2019 and due to the extraordinary rate of transmission of COVID-19, it was declared a global pandemic on March 11, 2020. Liver dysfunction is one of the complications of COVID-19 patients. In Indonesia, research on the effect of COVID-19 infection on liver function tests in patients receiving treatment in the ICU and Non-ICU is still quite limited. So that the study was conducted to determine differences in liver function parameters in COVID-19 patients treated in ICU and Non-ICU.

**Objective:** To know the differences in liver function parameters between COVID-19 patients treated in the ICU and Non-ICU at Dr. Kariadi Semarang.

**Method:** This study is an analytic observational study with a cross sectional study design on COVID-19 patients at Dr. RSUP. Kariadi Semarang. The sample of this study came from secondary data from medical records of COVID-19 patients at Dr. Kariadi Semarang in the period January 2021-December 2021. 108 samples were obtained using the total sampling method.

**Results:** Data are not normally distributed. After the Mann Whitney test, there was a significant difference between the groups treated in the ICU and non-ICU in the Neutrophil-Lymphocyte Ratio (NLR), albumin, PTT, APTT, and D-dimer variables with significant values ( $p < 0, 05$ ). On the other hand, the variables SGPT, SGOT, direct bilirubin, indirect bilirubin, ALP, and GGT did not show a significant/significant difference between the groups of patients treated in the ICU and those treated in the non-ICU ( $p > 0.05$ ).

**Conclusion:** significant differences in the number of Neutrophil-Lymphocyte Ratio (NLR), albumin, PTT, APTT, and D-dimer treated in the ICU and non-ICU rooms, Dr. Kariadi Semarang and There was no significant difference in the amount of SGPT, SGOT, direct

*bilirubin, indirect bilirubin, ALP, and GGT treated in the ICU and non-ICU rooms, Dr. Kariadi Semarang.*

**Keywords:** *Comparison, liver function tests, ICU, non-ICU.*