

# Leptin dan Skor Mortalitas 4C sebagai Prediktor Luaran Buruk Pasien COVID 19 Terkonfirmasi Selama Perawatan = Leptin and ISARIC 4C Mortality Score to Predict Poor Outcomes in Hospitalized Patients with Confirmed COVID-19

Nani Oktavia, author

Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=9999920549064&lokasi=lokal>

---

## Abstrak

Latar belakang: Severe acute respiratory syndrome coronavirus 2 (SARS CoV-2) adalah virus menyebabkan infeksi saluran pernafasan dan memiliki manifestasi klinis ringan sampai berat serta dapat menyebabkan kematian. Tingginya angka morbiditas dan mortalitas akibat infeksi COVID 19 menyebabkan diperlukannya stratifikasi resiko terhadap pasien saat masuk ke rumah sakit serta prediktor terjadinya luaran buruk pada pasien. Tujuan: Mengetahui kemampuan skor mortalitas 4C dan kadar leptin dalam memprediksi luaran buruk pasien COVID 19 terkonfirmasi selama perawatan. Metode: Penelitian ini merupakan kohort prospektif dari 375 pasien COVID-19 yang dirawat di RSUPN Cipto Mangunkusumo sejak November 2020 hingga April 2021. Pasien dilakukan pemeriksaan fisik, CRP, Ureum serta pemeriksaan kadar leptin saat admisi. Dilakukan analisis multivariat regresi logistik untuk menilai kemampuan skor mortalitas 4C dan leptin untuk memprediksi luaran buruk komposit yang mencakup ARDS dan mortalitas. Analisis korelasi dan regresi linier dengan STATA 15. Hasil: Dari analisis data pada 375 pasien didapatkan skor mortalitas 4C dapat memprediksi luaran buruk pasien COVID 19 selama rawat inap dengan area under curve (AUC) 0,68 (IK 0,61-0,75) dan titik potong skor mortalitas 4C adalah 6. Dari analisis multivariat didapatkan leptin tidak dapat memprediksi luaran buruk pasien COVID 19 selama rawat inap dengan area under curve (AUC) 0,52 (IK 0,44-0,60). Kesimpulan: Skor mortalitas 4C mampu memprediksi luaran buruk pasien COVID 19 terkonfirmasi selama perawatan sedangkan leptin tidak mampu menjadi prediktor luaran buruk pasien COVID 19 selama perawatan.

.....Background: The high morbidity and mortality rates due to COVID-19 infection require risk stratification for patients when admitted to the hospital as well as predictors of poor patient outcomes. While obesity has been reported to be associated with poor outcomes, the role of leptin, a proinflammatory cytokines released by the adipose tissue, has never been assessed. Objective: To determine the ability of the leptin levels and 4C mortality score to predict poor outcomes in confirmed COVID-19 patients. Method: This study is a prospective cohort of 375 COVID-19 patients treated at Cipto Mangunkusumo National Referral Hospital from November 2020 to April 2021, as part of the CARMEL study. Subjects who were 18 years old and above and had confirmed COVID-19 status through COVID-19 polymerase chain reaction (PCR) from oropharyngeal swabs were included. Subjects when admitted to the hospital required non-invasive ventilation, mechanical ventilation, ECMO and those who refused to participate in the study were excluded. A multivariate logistic regression analysis was performed to assess the ability of the 4C mortality score and leptin to predict composite adverse outcomes, including ARDS and mortality. Results: Our study observed that while the 4C mortality score could predict poor outcomes for COVID-19 patients during hospitalization with an AUC of 0.68 (CI 0.61-0.75), leptin levels could not predict poor outcomes [(AUC of 0.52 (CI 0.44-0.60)]. Conclusion: Leptin levels were not associated with the development of poor outcomes in hospitalised Covid-19 patients.