

## INTISARI

Kortikosteroid merupakan terapi yang direkomendasikan untuk pasien COVID-19 yang memerlukan perawatan di rumah sakit dengan gejala berat, namun penggunaan kortikosteroid pada pasien dengan komorbiditas diabetes melitus dapat memperburuk kondisi pasien karena dapat meningkatkan kadar glukosa darah. Penelitian ini bertujuan untuk mengetahui hubungan penggunaan obat deksametason sebagai terapi COVID-19 dengan luaran klinis pasien.

Penelitian ini menggunakan desain penelitian observasional analitik dengan pendekatan kohort retrospektif. Subjek meliputi pasien dengan usia >18 tahun terkonfirmasi RT-PCR *severe* COVID-19 dengan komorbiditas diabetes melitus tipe 2 yang mendapatkan terapi deksametason di RSUP Dr. Sardjito Yogyakarta periode Juni 2021 – Maret 2022. Luaran klinik yang diamati berupa profil glukosa darah sewaktu dengan pengamatan *pre-post* dan lama perawatan di bangsal COVID-19 dari data rekam medis pasien. Analisis pengaruh deksametason dengan luaran klinik profil glukosa darah digunakan *Paired T-Test* dan hubungan dengan luaran klinik digunakan *Chi-square* dan *Fisher test* dengan taraf kepercayaan 95% dan kemaknaan  $p < 0,05$ .

Jumlah sampel pada penelitian ini yaitu sebanyak 60 pasien. Dari hasil penelitian diperoleh 78,30% pasien mengalami peningkatan glukosa darah sewaktu setelah diberikan terapi deksametason selama 4 hari. Rata-rata lama rawat inap pasien di bangsal COVID-19 yaitu  $6,46 \pm 1,80$  hari, terdapat 48,7% pasien dengan lama rawat inap  $\leq 6$  hari. Terdapat pengaruh yang signifikan pada kadar glukosa darah pasien antara sebelum dan sesudah pemberian terapi deksametason selama 4 hari dengan rata-rata selisih glukosa darah sewaktu yaitu  $78,32 \pm 116,77$  ( $p < 0,001$ ). Tidak terdapat hubungan yang signifikan antara profil glukosa darah dengan lama rawat inap pasien *severe* COVID-19 disertai komorbiditas DM tipe 2 ( $p = 0,30$ ).

**Kata Kunci:** COVID-19, *Corticosteroid*, Diabetes Mellitus

## ABSTRACT

Corticosteroids are the recommended therapy for COVID-19 patients who require hospitalization with severe symptoms, but the use of corticosteroids in patients with co-morbid diabetes mellitus can worsen the patient's condition because they can increase blood glucose levels. This study aims to determine the relationship between the use of the drug dexamethasone as a COVID-19 therapy and the patient's clinical outcome.

This study used an analytic observational study design with a retrospective cohort approach. Subjects included patients aged >18 years with confirmed RT-PCR severe COVID-19 with comorbid diabetes mellitus type 2 who received dexamethasone therapy at RSUP Dr. Sardjito Yogyakarta for the period June 2021 – March 2022. The observed clinical outcomes were blood glucose profiles during pre-post observations and length of stay in the COVID-19 ward from patient medical record data. Analysis of the effect of dexamethasone on the clinical outcome of the blood glucose profile was used in the Paired T-Test and the relationship with the clinical outcome was used by the Chi-square and Fisher's tests with a 95% confidence level and a significance  $p < 0.05$ .

The number of samples in this study were 60 patients. From the results of the study, it was found that 78.30% of patients experienced an increase in blood glucose while after being given dexamethasone therapy for 4 days. The average length of stay of patients in the COVID-19 ward is  $6.46 \pm 1.80$  days, there are 48.7% of patients with length of stay  $\leq 6$  days. There was a significant effect on the patient's blood glucose levels between before and after administration of dexamethasone therapy within a period of 4 days with an average difference in blood glucose at that time, namely  $78.32 \pm 116.77$  ( $p < 0.001$ ). There was no significant relationship between blood glucose profile and length of stay in severe COVID-19 patients accompanied by type 2 DM comorbidities ( $p = 0.30$ ).

**Keywords:** COVID-19, *Corticosteroid*, Diabetes Mellitus