ABSTRACT

PROFILE OF DIABETES MELLITUS THERAPY IN COVID-19 PATIENTS WITH DIABETES MELLITUS AS COMORBID IN KOGABWILHAN II EMERGENCY HOSPITAL SURABAYA

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Background: Diabetes mellitus (DM) as comorbid in COVID-19 is known to elevate the symptoms severity and also the mortality rate (Wu and McGoogan, 2020). Good glycemic control is one of the conditions that must be achieved to reduce the symptoms severity or death in COVID-19 patients with diabetes mellitus. Providing optimal antidiabetic therapy along with regular blood glucose monitoring is one of strategies that could be done.

Objectives: To analyze the profile of diabetes mellitus therapy, patient characteristics, length of hospital stay, and clinical symptoms in COVID-19 patients with diabetes mellitus at the KOGABWILHAN II Emergency Hospital in Surabaya in May-December 2020.

Methods: This study used a cross-sectional analytic design with inclusion criteria, male / female aged ≥18 years, confirmed COVID-19, had diabetes mellitus as comorbid with or without other comorbidities and was on diabetes mellitus therapy. Patient demographic data, clinical characteristics, therapy profiles, and length of day of treatment were analyzed descriptively and presented in tables or graphs. The relationship/correlation between research variables was analyzed using the Chi-Square and/or Spearman test; differences between variables were analyzed using the Mann-Whitney U test using SPSS version 25.

Results: The most common oral antidiabetic therapy was glimepiride [1x2mg] po 15 minutes ac, at 14.15% and combination of Glimepiride [1x2mg] po 15 minutes ac + Metformin [3x500 mg] po pc) at 3.77%. The most common insulin therapy is a combination of insulin glulisine [3x10 units, 15 minutes ac] sc and insulin detemir [14 units every night] sc at 2.83%. The most frequent clinical symptom in this study was productive cough (33.02%). Most of the patients in this study (44.34%) did not achieve a clinical outcome in the form of post-therapy FBG <130 mg/dL. A total of 59.43% of patients in this study experienced an improvement in clinical conditions with negative PCR-Swab results at hospital discharge. Length of hospital stay with the highest number of patients was in the range of 6-10 days (49.06%).

Conclusion: Treatment of diabetes mellitus in this study had not reached the therapy outcome, as indicated by most of patients (44.34%) had post-therapy FBG levels> 130 mg / dL (uncontrolled DM) at the time of hospital discharge.

Keywords: COVID-19, Diabetes mellitus, Comorbid

ABSTRAK

PROFIL TERAPI DIABETES MELLITUS PADA PASIEN COVID-19 DENGAN KOMORBID DIABETES MELLITUS DI RUMAH SAKIT LAPANGAN KOGABWILHAN II SURABAYA

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Latar Belakang: Diabetes mellitus (DM) sebagai komorbid pada COVID-19 diketahui dapat meningkatkan severitas gejala dan meningkatkan. Kontrol glikemik yang baik menjadi salah satu syarat yang harus dipenuhi untuk dapat menurunkan resiko perburukan gejala atau pun kematian pada pasien COVID-19 dengan komorbid DM. Salah satu strategi yang dapat dilakukan yaitu dengan pemberian terapi antidiabetik yang optimal disertai dengan monitoring glukosa darah secara berkala.

Tujuan: Untuk menganalisis profil terapi diabetes mellitus, karakteristik pasien, lama hari perawatan, dan gambaran gejala klinis pada pasien COVID-19 dengan komorbid diabetes mellitus di Rumah Sakit Lapangan KOGABWILHAN II Surabaya periode Mei-Desember 2020.

Metode: Penelitian ini menggunakan rancangan *crossectional* analitik dengan kriteria inklusi yaitu: pria/ wanita berusia ≥18 tahun , terkonfirmasi COVID-19, memiliki komorbid diabetes mellitus dengan atau tanpa komorbid lain, dan sedang mendapatkan terapi diabetes mellitus. Data demografi pasien, karakteristik klinis,profil terapi, dan lama hari perawatan dilakukan analisis deskriptif dan disajikan dalam bentuk tabel atau grafik. Hubungan/korelasi antar variabel penelitian dianalisis dengan uji *Chi Square* dan/atau Spearman; perbedaan antar variabel analisis dengan uji *Mann-Whitney U* menggunakan SPSS versi 25.

Hasil: Terapi antidiabetik oral terbanyak adalah glimepiride [1x2mg]po 15 menit ac, sebesar 14,15% dan kombinasi Glimepiride [1x2mg]po 15 menit ac + Metformin [3x500 mg]po pc) sebesar 3,77%. Terapi insulin terbanyak yaitu kombinasi insulin glulisine [3x10 Unit, 15 menit ac]sc dan insulin detemir [14 Unit setiap malam] sc sebesar 2,83%. Gejala klinis yang paling sering muncul pada penelitian ini yaitu batuk berdahak (33,02%). Mayoritas pasien dalam penelitian ini (44.34%) tidak mencapai *outcome* terapi berupa penurunan kadar GDP. Lama hari perawatan dengan jumlah pasien terbanyak yaitu pada rentang 6-10 hari (49,06%).

Kesimpulan: Terapi diabetes mellitus pada penelitian ini belum mencapai *outcome* terapi, ditandai dengan sebagian besar pasien (44,34%) kadar GDP *post* terapi >130 mg/dL (DM tidak terkontrol) saat selesai menjalani perawatan di rumah sakit.

Kata kunci: COVID-19, Diabetes mellitus, Komorbid