PP-D-23

GLUCOSE VARIABILITY AND DIASTOLIC DYSFUNCTION IN PATIENTS WITH TYPE 2 DIABETES

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Yana Dzhun,[1] Georgy Mankovsky,[1] Nadiya Rudenko,[2] Yevgen Marushko,[1] Borys Mankovsky,[2] Yana Saenko[1]

[1]*The Scientific and Practical Medical Center of Pediatric Cardiology and Cardiac Surgery, Kyiv, Ukraine*

[2]*Shupyk National Medical Academy of Postgraduate Education, Kyiv, Ukraine*

OBJECTIVES

Diastolic dysfunction is one of signs of heart failure and could be associated with autonomic neuropathy. Glycemic variability could be one of the reason predisposing to heart failure in subjects with diabetes. We examined the relationship between glycemic variability and diastolic dysfunction in patients with type 2 diabetes mellitus without coronary artery disease.

METHODOLOGY

Seventy-eight patients with heart failure with preserved left ventricular ejection fraction and type 2 diabetes mellitus were examined. Diastolic function was assessed by echocardiography, glycemic variability was evaluated by continuous glucose monitoring. According to the glycemic variability, all studiypatients were divided into two groups: group I - SD>2 (high glycemic variability), n = 40; group II - SD≤1.9 (normal glycemic variability), n = 38.

RESULTS

Group I were older (49 (9) vs 46 (5); $p<0.05$, with a longer duration of DM (10 yrs (9.5) vs 6 yrs(5.5); $p<0.01$). In group I compared to group II there were more patients with grade 2 diastolic dysfunction (25 (62.5%) vs 10 (26.3), $p<0.05$). Patients in group I had more severe diastolic dysfunction. In group I patients insulin and sulfonylureas were used more often (11 (27.5%) vs 0 p = 0.0001; 25 (62.5%) vs 10 (26.3%); $p<0.01$, respectively); patients of group II were more often treated with SGLT2 (2 (5%) vs 13 (34.21%); $p<0.01$).

CONCLUSIONS

Increased glycemic variability is associated with diastolic dysfunction and in patients with type 2 diabetes.

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COMPARISON OF THE CLINICAL OUTCOMES OF HYPERGLYCEMIC CRISIS IN COVID-POSITIVE AND COVID-NEGATIVE PATIENTS: A RETROSPECTIVE COHORT STUDY

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Jekrylei Cadeliña and Joy Arabelle Fontanilla

St. Luke's Medical Center-Global City, Philippines

OBJECTIVES

Since the start of the COVID-19 pandemic, there has been an increased incidence of hyperglycemic crisis in hospitals, involving both those with and without COVID-19 infection. Our objective was to compare the clinical outcomes between COVID-positive and COVID-negative patients who were admitted for hyperglycemic crisis from March 2020 to February 2022.

METHODOLOGY

We conducted a retrospective cohort study of adult patients with hyperglycemic crisis on admission from March 1, 2020 to February 28, 2022 at the St. Luke's Medical Center - Global City. They were divided into two groups: those with and without COVID-19 infection. Their medical records were reviewed to determine and compare their clinical background, presenting clinical manifestations, non-COVID acute conditions, biochemical and clinical parameters, treatment regimen, and clinical outcomes. Descriptive statistics were employed.

RESULTS

The COVID-positive group had significantly higher in-hospital mortality rate prior to resolution of hyperglycemic crisis ($p=0.008$) and had a significantly higher proportion of patients who developed acute respiratory failure ($p=0.000$) and multi-organ failure ($p=0.003$). They were also significantly older and had a significantly higher proportion of patients who had preexisting malignancy, presented with cough and dyspnea, and received concurrent steroid treatment. The COVID-negative group significantly had more patients who presented with abdominal pain, had urinary tract infection on admission, and developed acute kidney injury.

CONCLUSION

Patients hospitalized with hyperglycemic crisis who also had COVID-19 infection had higher in-hospital mortality rate before resolution of hyperglycemic crisis, compared to those who did not have COVID-19 infection.