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EUGLYCEMIC DIABETIC KETOACIDOSIS AMONG FILIPINO PATIENTS WITH TYPE 2 DIABETES MELLITUS ASSOCIATED WITH SGLT2-INHIBITORS: CASE SERIES

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OBJECTIVES

Euglycemic diabetic ketoacidosis (EuDKA) is an uncommon but serious adverse effect of SGLT2-i. The use of SGLT2-i is likely to increase because of its beneficial effects on cardiovascular and kidney outcomes which may lead to an increase in the incidence of EuDKA. The study contributes to the body of knowledge on the present data regarding EuDKA.

CASE

This case series included adult patients diagnosed with EuDKA secondary to SGLT2-i in a tertiary training hospital from November 2021 to April 2022. Four patients were included in the study.

The most common presenting symptoms include abdominal pain, nausea, vomiting and diarrhea. All patients had confirmed type 2 diabetes mellitus. All patients were prescribed with more than 2 oral hypoglycemic medications. Two (50%) patients had heart disease and hypertension. The median age was 67 years, and 2 (50%) were males. The median hemoglobin A1c (HbA1c) on presentation was 8.7% (range: 5.3% - 10.9%). The median BMI was 25 kg/m². All patients were admitted in the ICU. The median length of ICU stay and hospital was 5 days and 18 days, respectively. The median time to resolution of metabolic acidosis was 30 hours.

CONCLUSION

The diagnosis of EuDKA is elusive due to presenting generalized symptoms and the lack of awareness among patients. Normoglycemia in the setting of metabolic acidosis poses a challenge for diagnosis. Among patients with surgical procedures and history of intake of SGLT2-i, it is important to obtain serum or urine ketones during the post-operative period.

PP-D-42

A COMPREHENSIVE STUDY FOR THE IDENTIFICATION OF DIABETES MELLITUS TYPE 1 IN INDONESIA (ACROSS 21 STUDY PRELIMINARY REPORT)

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OBJECTIVES

Testing for islet cell autoantibody markers such as anti-GAD65, anti-IA2, anti-ZnT8, or IAA, for diagnosing diabetes mellitus type 1 (T1 DM) from other types of diabetes is underutilized in Indonesia. Comprehensive study of identifying T1 DM, involving the measurements of fasting sugar, HbA1c, glycated albumin, C-peptide, and 3 islet cell autoantibody markers: anti-GAD65, anti-IA2, and anti-ZnT8.

METHODOLOGY

Of 43 samples examined, 18 were classified as normal while 25 fulfilled the standard criteria for diabetes mellitus.

RESULTS

One out of 18 normal sugar samples and 9 out of 25 diabetic samples were found to have low C-peptide level. Evaluation using a combination of the 3 islet cell autoantibodies used in this study revealed 5 out of the 16 diabetic samples having measurable level of 1 or 2 autoantibodies. Two out of the 17 normal sugar samples with normal C-peptide level demonstrated measurable level of at least 1 autoantibody marker. Out of the 10 samples with low C-peptide level, only 5 samples demonstrated measurable level of 1 or 2 autoantibodies.

CONCLUSION

Islet cell autoantibodies could be present in normal sugar samples with normal C-peptide level. A low C-peptide does not automatically translate to the presence of islet cell autoantibodies. Measurement of islet cell autoantibody markers for a precise diagnosis of T1 DM in Indonesia is important.