Dapagliflozin

Euglycemic diabetic ketoacidotic coma: case report

A 72-year-old woman developed euglycemic diabetic ketoacidotic coma during treatment with dapagliflozin for type 2 diabetes mellitus.

The woman, who had type 2 diabetes mellitus, presented to emergency department with altered mental status. Two days prior to presentation, she had undergone hip prosthesis operation. Additionally, she had a history of total thyroidectomy and cholecystectomy. She was receiving dapagliflozin [Forziga; dosage and route not stated] along with levothyroxine [euthyrox] and glukofen. Physical examination showed that she was confused, non-cooperative and non-oriented. She had a body temperature of 36.7°C, heart rate of 110 /minute, respiratory rate of 22 /minute and blood pressure of 133/50mm Hg. Respiratory pattern was Kussmaul respiration. Her oral mucosa was dry and she had decreased skin turgor and moderate dehydration. Arterial blood gas values showed blood glucose level of 136 mg/dL. She also had high anion gap metabolic acidosis. Additionally, her blood ketones level was high, urine ketones was positive, blood urea nitrogen level was 38 mg/dL, serum creatinine level was 1.26 mg/dL and blood potassium level was 2.7 mmol/L. Subsequently, she was diagnosed with euglycemic diabetic ketoacidosis [duration of treatment to reaction onset not stated] due to SGLT-2 inhibitor use.

The woman was scheduled with treatment of insulin infusion, IV rehydration, dextrose fluid, sodium bicarbonate treatment and potassium replacement treatment. She was admitted to ICU. Afterwards, serial blood gas analysis results showed slow improvement in ketoacidosis as her serum ketone clearance increased. On third day following dapagliflozin discontinuation, her mental state fully restored. She was discharged from ICU and admitted to orthopaedics ward for her hip prosthesis.

Author comment: “In this study, we present the case of a type 2 diabetic patient, who had developed [euglycemic diabetic ketoacidosis] due to dapagliflozin [. . .] administration.”

Karakaya Z, et al. Euglycemic diabetic ketoacidotic coma caused by dapagliflozin. American Journal of Emergency Medicine 36: No. 11, Nov 2018. Available from: URL: http://doi.org/10.1016/j.ajem.2018.08.054 - Turkey