

Title

Euglycemic Diabetic Ketoacidosis in a Patient with Type 2 Diabetes on Dapagliflozin Presenting with Acute Gastroenteritis

Case Presentation

Patient Profile

Age: 35 years

Gender: Male

Residence: Hyderabad, Sindh

Known Type 2 Diabetes Mellitus (5 years)

Followed at Suleman Roshan Medical Hospital

Medications

Metformin 1000 mg BD

Dapagliflozin 10 mg OD (1 year)

No insulin use

No alcohol intake

Presenting Complaints

Vomiting (3 days), abdominal pain, generalized weakness, shortness of breath (1 day)

History of Present Illness

Patient developed acute gastroenteritis with poor oral intake. Despite illness, he continued dapagliflozin. Symptoms worsened with increasing breathlessness, prompting emergency visit.

Examination

Conscious but lethargic

BP 100/60 mmHg, Pulse 116/min, RR 30/min (deep rapid breathing), Afebrile

Dry mucous membranes

Abdomen soft, non-tender

Initial Working Diagnosis

Acute gastroenteritis with dehydration

Sepsis

Acute abdomen

DKA initially considered unlikely due to near-normal glucose

Laboratory Investigations

Random blood sugar 176 mg/dL, Serum sodium 132 mmol/L, Serum potassium 5.4 mmol/L, Serum bicarbonate 8 mmol/L, Anion gap 30, Serum creatinine 1.2 mg/dL, Serum lactate normal, Serum lipase normal

Arterial Blood Gas

pH 7.05, HCO_3^- 7 mmol/L, pCO_2 20 mmHg

High anion gap metabolic acidosis

Ketone Testing

Urine ketones +++

Serum beta-hydroxybutyrate elevated

Exclusion of Other Causes

Sepsis: No fever, negative cultures

Pancreatitis: Normal lipase and imaging

Renal failure: Normal creatinine

Toxic ingestion: No history

Final Diagnosis

Euglycemic diabetic ketoacidosis secondary to SGLT2 inhibitor use

Management

Immediate discontinuation of dapagliflozin

IV fluids, IV insulin infusion, electrolyte correction

ICU monitoring

Outcome

Acidosis resolved within 48 hours

Discharged on basal-bolus insulin

Counseled regarding sick-day rules

Learning Points

Normal glucose does not exclude DKA

Always check ABG and ketones in sick diabetics

SGLT2 inhibitors should be stopped during acute illness

Early recognition saves lives