

<0.001), higher mean glucose ($r = 0.58, p = 0.002$), and greater variability ($r = 0.54, p = 0.004$). Older age was associated with lower TIR ($r = -0.48, p = 0.014$) and higher mean glucose ($r = 0.44, p = 0.025$). Higher HbA1c correlated with lower TIR ($r = -0.36, p = 0.04$), higher TAR ($r = 0.35, p = 0.05$), greater variability ($r = 0.51, p = 0.006$), and increased target organ damage ($q = 0.55, p = 0.004$). BMI was not associated with TIR ($r = -0.18, p = 0.38$). Participants with ≥ 2 complications had lower TIR ($55.8 \pm 28.4\%$ vs $76.7 \pm 19.2\%$, $p = 0.073$), while insulin therapy was associated with higher TBR ($r = 0.42, p = 0.03$).

CONCLUSION

In Malaysian adults with T2DM, CGM metrics were similar between weekdays and weekends, indicating lifestyle differences had minimal impact on glycemic control. Longer diabetes duration, older age, higher HbA1c, multiple complications, and insulin therapy identified patients at highest risk for poor glycemic control, greater variability, and hypoglycemia. These findings support the use of CGM for risk stratification, individualized monitoring, and therapy optimization to reduce complications and hypoglycemia risk.

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EUGLYCEMIC DIABETIC KETOACIDOSIS: CLINICAL INSIGHTS FROM A TERTIARY-CENTRE COHORT

Jia Ling Loh¹, Chin Voon Tong¹, Lisa Mohamed Nor²

¹Institut Endokrin, Hospital Putrajaya

²Clinical Research Centre, Hospital Putrajaya

INTRODUCTION

Euglycemic diabetic ketoacidosis (EDKA) is an uncommon but potentially life-threatening complication of diabetes, characterized by significant ketoacidosis in the absence of marked hyperglycemia. The increasing use of sodium-glucose co-transporter-2 inhibitors (SGLT2i) has contributed to its rising incidence; however, data describing its clinical spectrum remain limited.

METHODOLOGY

We conducted a retrospective observational study of 19 patients admitted for EDKA between 2002 and 2025. EDKA was defined as metabolic acidosis with ketosis in the presence of blood glucose < 11 mmol/L. Demographic characteristics, comorbidities, biochemical parameters, triggers, and clinical outcomes were analyzed. Continuous variables were reported as mean (SD) or median (interquartile range [IQR]), and categorical variables as frequencies and percentages.

RESULTS

The cohort displayed a mean age of 52 (SD 22.2) years, with a slight female predominance (52.6%). The majority had underlying type 2 diabetes mellitus (89.5%). Other comorbidities include hypertension (63.2%) and chronic kidney disease (31.6%). Despite severe metabolic derangement, the mean blood glucose at presentation was modest at 9.3 (SD 3.38) mmol/L. Median pH was 7.1 (IQR 0.35) and bicarbonate 9.1 mmol/L, with a markedly elevated median anion gap of 25.3 mmol/L.

SGLT2i exposure was identified in 47.4% of patients, predominantly empagliflozin, with most initiated within 6 months. Nevertheless, infection was still the leading precipitant (68.4%), while 31.6% were adjudicated as having SGLT2i as the primary precipitating factor, probably due to underreporting during the diagnosis. Nearly half of the patients required intensive care (47.4%). The mean time to DKA resolution was 19 (SD 10.1) hours. Overall outcomes were favorable, with 89.5% of patients discharged and a mortality rate of 10.5%.

CONCLUSION

EDKA presents with severe metabolic acidosis despite deceptively normal glucose levels, increasing the risk of delayed recognition. Early assessment of ketones and acid-base status is essential in patients with diabetes presenting with unexplained metabolic acidosis, particularly among those receiving SGLT2 inhibitors, to facilitate timely diagnosis and management.

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AUDIT OF STAFF KNOWLEDGE OF HYPOGLYCEMIA MANAGEMENT IN A DISTRICT HOSPITAL

Hong Lee Hoong¹, Low Chee Koon², Abdullah Shamshir Abd Mokti²

¹Medical Department, Hospital Raub

²Endocrine Unit HTAA

INTRODUCTION

Hypoglycemia, a frequent and potentially life-threatening consequence of anti-diabetic therapy, remains a major barrier to optimal glycemic control. Effective inpatient management depends on frontline staff knowledge and preparedness; thus, knowledge gaps may compromise patient safety. This audit evaluated staff knowledge of hypoglycemia management in a district hospital in Malaysia to identify areas for improvement.