

≥2 admissions during the study period. Factors associated with recurrent DKA admissions were analyzed. Patients under the age of 18 years and those with missing vital information were excluded.

RESULTS

A total of 667 DKA admissions, comprising 566 patients, were identified, of which 101 admissions (15.1%) were recurrent, involving 65 patients. Among recurrent DKA episodes, the most common precipitating factors were infection (64.4%) and insulin omission (62.4%). After multivariate analyses, patients with type 1 diabetes mellitus (T1DM) were more likely to develop recurrent DKA compared to those with type 2 diabetes mellitus (aOR 4.16; 95% confidence interval [CI] 2.58–6.70; $p < 0.001$). Insulin omission was strongly associated with recurrent DKA (aOR 2.29; 95% CI 1.46–3.60; $p < 0.001$). In contrast, baseline glycated hemoglobin and chronic kidney disease were not significantly associated with recurrence. Diabetic counseling during the first DKA admission did not reduce recurrent DKA. There were no significant differences in mortality (3.9% vs 6.2%, $p = 0.524$) or critical care admission rates (40.6% vs 38.7%, $p = 0.718$) between recurrent and first DKA episodes.

CONCLUSION

Recurrent DKA accounts for a substantial proportion of DKA admissions and is strongly associated with insulin omission and T1DM. Our findings suggest that recurrent DKA is driven predominantly by behavioral and adherence-related factors, indicating the need for multidisciplinary interventions beyond standard inpatient counseling.

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CLINICAL UTILITY OF MODIFIED ASIAN FINDRISC AND RANDOM CAPILLARY BLOOD GLUCOSE FOR THE DETECTION OF DYSGLYCEMIA IN THE ADULT POPULATION

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INTRODUCTION

Type 2 diabetes mellitus is a major healthcare problem worldwide, yet high percentage of patients are undiagnosed. There is a dire need for effective screening strategies. We examine the use of modified Asian FINDRISC (M-FINDRISC) and POCT random capillary blood glucose (rCBG) for the detection of dysglycemia.

METHODOLOGY

This cross-sectional, observational study included 151 adults aged ≥30 years without a prior history of diabetes in healthcare and community settings. Hemoglobin A1c of ≥6.3% was used for the diagnosis of diabetes, and 5.7–6.2% for prediabetes. Areas under the receiver operating curve (ROC-AUC) for M-FINDRISC were analyzed. The sensitivity and specificity of the combined use of M-FINDRISC and rCBG for the detection of dysglycemia were evaluated.

RESULTS

The mean age of the participants was 44.6 ± 11.0 years. They had high body mass index (27.8 ± 4.9 kg/m²). Most were sedentary (only 25.2% reported physical activities of ≥30 min/day). A total of 52.3% had first-degree relatives with diabetes, but less than 12% were taking antihypertensive medication. Out of 151 participants, 3.3% ($n = 5$) were diagnosed with diabetes mellitus and 37.7% ($n = 57$) with prediabetes, giving an overall prevalence of 41.1% for dysglycemia. The mean age of participants with dysglycemia was significantly older (47.9 vs. 42.3 years, p -value 0.002). Other parameters were not statistically different for the two groups. Mean M-FINDRISC score was 9.7 ± 3.9 in the normal and 10.8 ± 4.0 in the dysglycemic group, while rCBG was 6.4 ± 1.1 mmol/L and 7.1 ± 3.1 mmol/L, respectively. ROC-AUC of M-FINDRISC for dysglycemia was 0.561. A combined screening strategy (M-FINDRISC score ≥7.5 and CBG ≥7.8 mmol/L) yielded high specificity (89.9%) but low sensitivity (17.7%) for dysglycemia.

CONCLUSION

While the combined screening strategy utilizing M-FINDRISC and POCT random CBG improves specificity, M-FINDRISC showed limited predictive value for dysglycemia in this specific cohort, making it a less ideal tool for screening.