EP_A020

SAFETY AND EFFICACY OF DIFFERENT BASAL INSULINS IN TYPE 2 DIABETES MELLITUS WITH CHRONIC KIDNEY DISEASE DURING RAMADAN

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INTRODUCTION
Diabetic kidney disease in the Muslim population confers a high-risk for fasting in Ramadan due to various potential fasting-related complications. Basal insulin analogues, when used in place of human insulin, have shown better outcomes in terms of incidence of hypoglycaemia and glycaemic variability. There is insufficient literature comparing the safety and efficacy of the different types of basal insulins in the Malaysian setting. This study aimed to evaluate the safety and efficacy of three different basal insulins (Glargine U100, Levemir and Human Isophane Insulin) among patients with Type 2 Diabetes Mellitus and Chronic Kidney Disease stage 2 and 3 during Ramadan.

METHODOLOGY
This was a cross-sectional, comparative study conducted among Type 2 Diabetes Mellitus with concomitant Chronic Kidney Disease stage 2 and 3 who fasted during Ramadan in the year 2022. The primary endpoint was glycaemic variability and incidence of hypoglycaemia measured using the Abbott Freestyle Libre. Changes in glycated haemoglobin (HbA1c), fasting plasma glucose (FPG), renal profile, body weight and waist circumference were also evaluated.

RESULT
A total of 46 participants on three different types of basal insulin were enrolled. Glycaemic variability was highest among participants on Human Isophane Insulin with a median (IQR) of 37.2% (33) compared with Levemir 34.4% (32.4) versus Glargine U-100 36.8% (30.6), p=NS. The Levemir group registered the lowest incidence of hypoglycaemia (2%) compared to the Human Isophane Insulin and Glargine groups which had 4% respectively. When comparing pre and post Ramadan parameters, there were no statistically significant changes in glycated haemoglobin (HbA1c), fasting plasma glucose (FPG), creatinine level, body weight, body mass index, and waist circumference.

CONCLUSION
Basal insulin analogues offered better safety and efficacy profiles among patients with diabetic kidney disease during fasting, with insulin Levemir having the lowest incidence of hypoglycemia.

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HEMICHOREA IN A NEWLY DIAGNOSED TYPE 2 DIABETIC PATIENT

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INTRODUCTION/BACKGROUND
Chorea is a rare neurologic complication of uncontrolled Type 2 Diabetes Mellitus (T2DM). We report the case of an elderly female with newly diagnosed T2DM, presenting with hyperglycaemia-induced right unilateral hemichorea.

CASE
A 78-year-old female with hypertension and dyslipidaemia presented with one month history of right upper and lower limb involuntary choreiform movements which decreased during sleep. There was no history of fever, neck stiffness, limb weakness, seizure, head trauma, thyrotoxicosis, or a family history of movement disorder. There was no history of intake of medications that can cause chorea. Upon neurological assessment, there was unilateral right hemichorea involving the upper and lower limbs. The examination of higher mental function, cranial nerve, motor, and sensory system were normal.

Her plasma glucose on presentation was 22 mmol/L with no evidence of diabetic ketoacidosis or hyperglycaemic hyperosmolar state. Her glycated haemoglobin (HbA1c) was 15.9%. A non-contrast computed tomography of her brain showed a contralateral hyperdensity at the left caudate nucleus. The patient was treated with intravenous insulin and mild improvement in the choreiform movement was seen after initiation of treatment.

CONCLUSION
Hemichorea is a rare complication of hyperglycaemia-induced involuntary movements. High suspicion of chorea-hyperglycaemia-basal ganglia syndrome should prompt early diagnosis and treatment for diabetes mellitus as delay in recognition and treatment can lead to persistent symptoms and prolonged disability.