Malay ethnicity (n = 125, 86.8%), followed by Indian (n = 14, 9.7%), Chinese (n = 4, 2.8%), and Thai (n = 1, 0.7%). Most participants (n = 90, 62.5%) were from low-income backgrounds. Educational attainment was limited, with 16% having no formal education or only primary-level education. Cognitive function assessment revealed that only 49 participants (34%) had normal cognitive function, while 72 participants (50%) exhibited mild cognitive impairment. Moderate cognitive impairment was observed in 21 participants (14.6%), and severe cognitive impairment was identified in 2 participants (1.4%).

CONCLUSION

This study reveals a strikingly high prevalence of cognitive impairment among individuals with T2DM, underscoring an urgent need for early detection and proactive intervention. As cognitive decline directly influences disease self-management, medication adherence, and overall quality of life, its integration into routine diabetes care is imperative.

EP_A177

TREATMENT OF DYSLIPIDEMIA IN TYPE 2 DIABETES MELLITUS PATIENTS AT THE DIABETES CLINIC, HOSPITAL SULTAN HAJI AHMAD SHAH: A CLINICAL AUDIT

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INTRODUCTION

Dyslipidemia is a major risk factor for cardiovascular disease in patients with Type 2 Diabetes (T2D) and requires aggressive management. The aim of this clinical audit is to assess the appropriateness of dyslipidemia treatment in T2D patients attending the diabetes clinic at Hospital Sultan Haji Ahmad Shah, Temerloh, Pahang.

METHODOLOGY

All T2D patients attending the diabetes clinic from June to July 2024 were included in this clinical audit. Electronic medical records were reviewed for demographic data, comorbidities, lipid profiles, cardiovascular disease risk assessments, and statin prescription patterns.

RESULT

A total of 102 patients were included, with a mean age of 53.2 years, 55.9% being female, and 59.8% having a diabetes duration of more than 10 years. The majority of patients had high to very high cardiovascular risk. Among the patients, 37.3% had chronic kidney disease and 32.4% had ischemic heart disease. The LDL-C control at the latest follow-up was suboptimal, with a mean LDL-C of 2.71 mmol/L. Additionally, 33.3% of patients were not initiated on the appropriate statin intensity, and 12% did not receive any lipid-lowering therapy. 20% of patients were on high doses of atorvastatin (60-80 mg), with limited use of combination therapy. Despite recognizing the patients' cardiovascular risk, there was clinical inertia in intensifying treatment.

CONCLUSION

This clinical audit highlights weaknesses in adherence to clinical guidelines and clinical inertia in dyslipidemia treatment. There is a greater need for continuous education and a stronger emphasis on achieving treatment goals in the management of T2D patients. Additionally, a reassessment of the budget for the availability of combination therapy options is necessary.

EP_A178

OBESITY TREATMENT: IMPACT OF BLOOD GLUCOSE, LIPID AND NON-ANTIOBESITY DRUGS ON MUSCLE MASS

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INTRODUCTION

While obesity is often linked to excess muscle mass, emerging data reveal a paradoxical relationship between metabolic parameters and sarcopenia. This study examines the interplay between blood glucose regulation, lipid metabolism, and muscle mass retention in metabolic obesity.

METHODOLOGY

A cross-sectional study was conducted at Hospital Sultan Abdul Aziz Shah (HSAAS), Serdang, Selangor, to identify factors influencing muscle mass changes in metabolic obesity. Adults (≥18 years) with BMI ≥27 kg/m² and at least two comorbidities were included, while those with bariatric surgery or conditions causing intentional weight loss were excluded. Clinical data, including BMI, metabolic parameters, and medication use, were collected. Sample size was determined using a correlation formula.

RESULT

Among 35 individuals (BMI ≥26.5 kg/m²), hyperglycemia (HbA1c >6.5%) and hypertriglyceridemia (≥1.7 mmol/L) correlated with muscle loss, whereas normoglycemia

and favorable lipid profiles (HDL ≥1.2 mmol/L, LDL <2.6 mmol/L) were protective. Moderate obesity (BMI 26.5–39.9) was universally associated with muscle gain, whereas severe obesity (BMI ≥40) showed mixed outcomes. Beta-blockers and hormones promoted muscle retention, while statins and protease inhibitors correlated with muscle decline.

CONCLUSION

Metabolic control, rather than BMI alone, plays a critical role in muscle retention among obese individuals. Glycemic and lipid optimization may be key in mitigating sarcopenia risk in metabolic obesity.

EP_A179

EFFECTS OF SGLT2 INHIBITOR INITIATION ON INSULIN-TREATED TYPE 2 DIABETES PATIENTS: A SINGLE CENTRE EXPERIENCE

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INTRODUCTION

Sodium-glucose co-transporter-2 (SGLT2) inhibitors have revolutionized the management of type 2 diabetes mellitus (T2DM) by enhancing glycaemic control, promoting modest weight loss, and providing proven cardiovascular and renal benefits. The impact of SGLT2 inhibitors on insulin-treated T2DM patients has also been highlighted in major clinical trials. This study examines the effects of SGLT2 inhibitors in insulin-treated T2DM patients in a dedicated diabetes clinic, focusing on HbA1c, insulin dosage and regimen, and weight changes after six months of treatment.

METHODOLOGY

This retrospective study was conducted at the diabetes clinic of Hospital Sultan Haji Ahmad Shah. Insulin-treated T2DM patients who were initiated on SGLT2 inhibitors between June and August 2024 were included in the study. Patients on concomitant GLP-1 receptor agonist therapy were excluded. Electronic medical records were reviewed for patient follow-up records.

RESULT

Fifty patients were included in the study, with a mean age of 52.32 years, and a predominance of female patients (64%). 74% of the patients were initiated on empagliflozin. The initiation of SGLT2 inhibitors resulted in a 12% reduction in basal-bolus therapy, with insulin treatment being de-intensified to premixed insulin therapy. There was a modest reduction in total daily dose (TDD) of insulin use (mean reduction 1.12 units, SD 19.4), HbA1c (mean reduction 0.36%, SD 1.8), and weight (mean reduction 1.02 kg, SD 7.5). 34% of patients experienced a reduction in TDD insulin use of more than 5 units, and 66% showed a reduction in HbA1c levels. In the empagliflozin-treated group, there was a greater reduction in TDD insulin and weight, while the dapagliflozin-treated group showed a greater reduction in HbA1c.

CONCLUSION

Initiation of SGLT2 inhibitors in insulin-treated T2DM patients has shown promising effects, supporting the initiative for insulin deintensification. However, further exploration and investigation are needed to assess the long-term metabolic effects and durability of SGLT2 inhibitor treatment.

EP_A180

DIABETIC KETOACIDOSIS MANAGEMENT IN HOSPITAL SULTAN HAJI AHMAD SHAH (HOSHAS): A CLINICAL AUDIT

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INTRODUCTION

Diabetic ketoacidosis (DKA) is a serious condition and improper initial assessment and management may lead to undesirable outcomes and even death. This clinical audit aimed to evaluate adherence to DKA management in HoSHAS according to standardized national and local guidelines. The standards pre-determine by local standards were: (1) Severe DKA patients should be managed in an ICU/HDW setting; (2) All patients should be treated according to standardized guidelines (fluid and insulin therapy, observation) and achieve resolution of DKA within 24 hours of diagnosis; (3) All patients should be assessed by diabetes educators prior to discharge; (4) All patients should have a well-documented discharge and follow-up plan.

METHODOLOGY

This audit was conducted from November to December 2024, involving all adult patients (aged 18 years and above) who met the diagnostic criteria for DKA. Patients with concurrent cardiac disease, ESRD, elderly patients, and pregnancy were excluded. Patient demographics and clinical data were collected from electronic medical records.