CONCLUSION

This patient illustrates a unique case of a likely familial hypertriglyceridemia co-existent with poorly controlled type 1 diabetes mellitus that presented with recurrent pancreatitis, eruptive xanthomas and lipemia retinalis, which can be controlled with appropriate treatment.

EP_A055

ASSESSING CLINICAL OUTCOMES OF SGLT2 INHIBITOR THERAPY IN ELDERLY HFrEF PATIENTS WITH AND WITHOUT DIABETES: A SINGLE-CENTRE STUDY

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INTRODUCTION/BACKGROUND

Heart failure with reduced ejection fraction (HFrEF) is a complex syndrome resulting in decreased ventricular function, leading to symptomatic left ventricle dysfunction and global cardiovascular morbidity and mortality. Type 2 Diabetes Mellitus (T2DM) escalates cardiovascular risk, necessitating tight glucose control. Sodium-glucose cotransporter 2 inhibitors (SGLT2i) promise to improve cardiovascular outcomes and diabetes therapy.

METHODOLOGY

This study aimed to assess the efficacy and safety profile of SGLT2i in elderly HFrEF patients, both with and without T2DM. In this retrospective observational study, we examined patients on SGLT2i aged 65 and older with an ejection fraction (EF) of ≤40% from our cardiology clinic. Patient medical records from 2018–2023 provided data for analysis, including demographics, comorbidities, changes in EF, New York Heart Association (NYHA) shifts, estimated glomerular filtration rate (eGFR) reduction, hospitalisation and mortality among patients with and without T2DM.

RESULTS

From 934 SGLT2 inhibitor-treated patients, our study focused on 167 elderly HFrEF patients, divided into T2DM (125 patients) and non-T2DM (42 patients). Both groups had similar demographics. Significantly, 80.6% of T2DM patients had hypertension, compared to 37.2% of non-T2DM patients (P <0.001). Both groups had improved EF (54% vs. 51.2%, P = 0.859). Guideline-Directed Medical Therapy (GDMT) showed a moderate association with observed outcomes, with no significant differences in EF or NYHA improvement between T2DM and non-T2DM patients (P = 0.859, P = 0.137, respectively). In T2DM patients, cardiovascular events, total hospitalisation, and mortality were greater but not statistically significant (P = 0.38, P = 0.128, and P = 0.113, respectively). Notably, patients without T2DM exhibited a more pronounced reduction in eGFR (P = 0.018).

CONCLUSION

SGLT2 inhibitors improved EF and NYHA classification in elderly patients with HFrEF, regardless of T2DM status. On the other hand, the presence of both T2DM and chronic kidney disease (CKD) emerged as significant risk factors associated with higher rates of hospitalisation and mortality.

EP_A056

METABOLIC BENEFITS OF ADDING SODIUM GLUCOSE CO-TRANSPORTER-2 INHIBITORS IN REAL-WORLD SETTINGS, A TERTIARY CENTRE EXPERIENCE

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INTRODUCTION/BACKGROUND

Sodium-glucose co-transporter-2 inhibitors (SGLT2i) have revolutionized the landscape of type 2 diabetes (T2D). Ministry of Health facilities in Malaysia manage approximately 1.6 million individuals with diabetes. Due to the high risk for cardiovascular disease, SGLT2i are indicated for these patients.

METHODOLOGY

This study looks at metabolic benefits for subjects started on SGLT2 inhibitors in tertiary hospital settings. This retrospective cohort study included patients with T2D who started on SGLT2i (empagliflozin or dapagliflozin) from 2018 to 2024. Data on age, weight change, HbA1c and total daily dose of insulin (TDD) were obtained for one year from initiation of SGLT2i.

RESULTS

Total sample recruited was 100. Mean age was 57.2 years. Six subjects were on dapagliflozin, and 94 subjects were on empagliflozin. Mean baseline weight was 80.6 kg, HbA1c was 9.19% and insulin TDD was 45.46 units. At one year, mean weight reduction was 2.54 kg (95%CI [-3.556,-1.528]), P = <0.001. Mean HbA1c change was -0.02% (95%CI [-0.730, -0.695]), P = 0.961. Similarly, a slight reduction of insulin TDD by 2.6 units was observed at one year (95%CI [-6.51, -1.28], P = 0.184).

CONCLUSION

Significant weight reduction was observed at 1 year, similar to other studies. Most patients reported the greatest weight loss during the first three months, possibly due to the diuretic effect of SGLT2i. Though HbA1c did not show a significant reduction in our cohort, the insulin TDD was slightly lower at 12 months, which may translate to a long-term reduction in healthcare costs. Limitations include fewer patients on dapagliflozin as this medication was only recently available in our facilities. Future studies should include a follow-up period with data on cardiovascular and renal outcomes.

EP_A057

NEVER TOO OLD FOR AUTOIMMUNE DIABETES: A CASE REPORT OF LADA DIAGNOSED IN AN ELDERLY PATIENT

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INTRODUCTION/BACKGROUND

Latent autoimmune diabetes of adults (LADA) is characterized by slow, progressive immune-mediated destruction of pancreatic islet cells, accounting for 2-12% of diabetes in adults. It is diagnosed in individuals more than 30 years old with positive diabetes-autoantibody. Diagnosis can be challenging and sometimes delayed as these patients fit neither type 1 nor type 2 diabetes phenotypes.

CASE

We report a case of late diagnosis of LADA in a 70-year-old male who was presumed to have type 2 diabetes mellitus (T2DM) and initially presented with multiple episodes of diabetic ketoacidosis (DKA) four years ago.

A 70-year-old Chinese male was diagnosed with T2DM 4 years ago and was started on treatment with metformin, vildagliptin and premixed human insulin. Despite good compliance with treatment, HbA1c remained very high (10-12%). He did not have a history of DKA, had no family history of autoimmune disease, no previous COVID infection. He was lean with a BMI of 17 kg/m^2 and there were no features of insulin resistance.

He presented to the hospital with severe DKA (blood sugar 26.8 mmol/L, pH 7.003, HCO3 5 mmol, ketone 7 mmol/L), attributed to atypical pneumonia. He responded to antibiotics and insulin with dextrose infusion and was subsequently discharged well with oral antidiabetic medications and basal insulin. However, after seven days, he was admitted again for severe DKA and was given intravenous steroids for adrenal insufficiency (AI). Subsequent cosyntropin tests ruled out AI. Diabetes autoantibody was requested and came back positive for anti-GAD, anti-ICA and anti-IA2. Treatment was shifted to basal-bolus insulin, resulting in improved HbA1c and no recurrence of DKA.

CONCLUSION

Diagnosis of LADA can be challenging. However, features of insulinopaenia such as DKA and the absence of clinical features of insulin resistance should raise clinical suspicion regardless of the patient's age of presentation.

EP_A058

TIME TO DISCONTINUATION OF SGLT2 INHIBITORS AMONG ADULTS WITH TYPE 2 DIABETES AT UNIVERSITI MALAYA MEDICAL CENTRE

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INTRODUCTION

Sodium-glucose cotransporter-2 inhibitors (SGLT2i) have emerged as a new guideline-directed medical therapy (GDMT) for managing cardiovascular-kidney-metabolic (CKM) syndrome. Understanding the pattern of SGLT2i discontinuation can help prevent unwarranted discontinuation of this GDMT and simultaneously develop interventions to mitigate its possible adverse sequelae. We aimed to evaluate the time to discontinuation of SGLT2i based on patient-, clinical- and medication-related factors among adults with type 2 diabetes (T2D) at the Universiti Malaya Medical Centre, Kuala Lumpur, Malaysia.

METHODOLOGY

We conducted a retrospective cohort study involving adults aged 18 years and above with T2D who were initiated with SGLT2i between January 2016 and December 2021. We used the Kaplan-Meier curves with log-rank tests to estimate the median time to SGLT2i discontinuation.