

**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  $\leq 40\%$  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],  $P = 0.184$ ).