



SGLT2 inhibitors use in Kidney Transplant Patients A retrospective UMMC Experience

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Introduction

Kidney transplant (KT) patients have high CV risk factors; from the vascular complications of ESKD to the associated metabolic complications of immunosuppressants. Emerging data suggests SGLT2 inhibitor (SGLT2-i) improves CV outcome, reduces Hba1c and preserves renal function.

Objectives

To describe the demographic of patients receiving SGLT2-i among KT cohort in University Malaya Medical Centre (UMMC) and to evaluate its safety profile.

Methods

This is a retrospective observational study conducted in UMMC. All KT patients under UMMC until December of 2021 were enrolled. Relevant information was retrieved from medical records and analysed using SPSS.

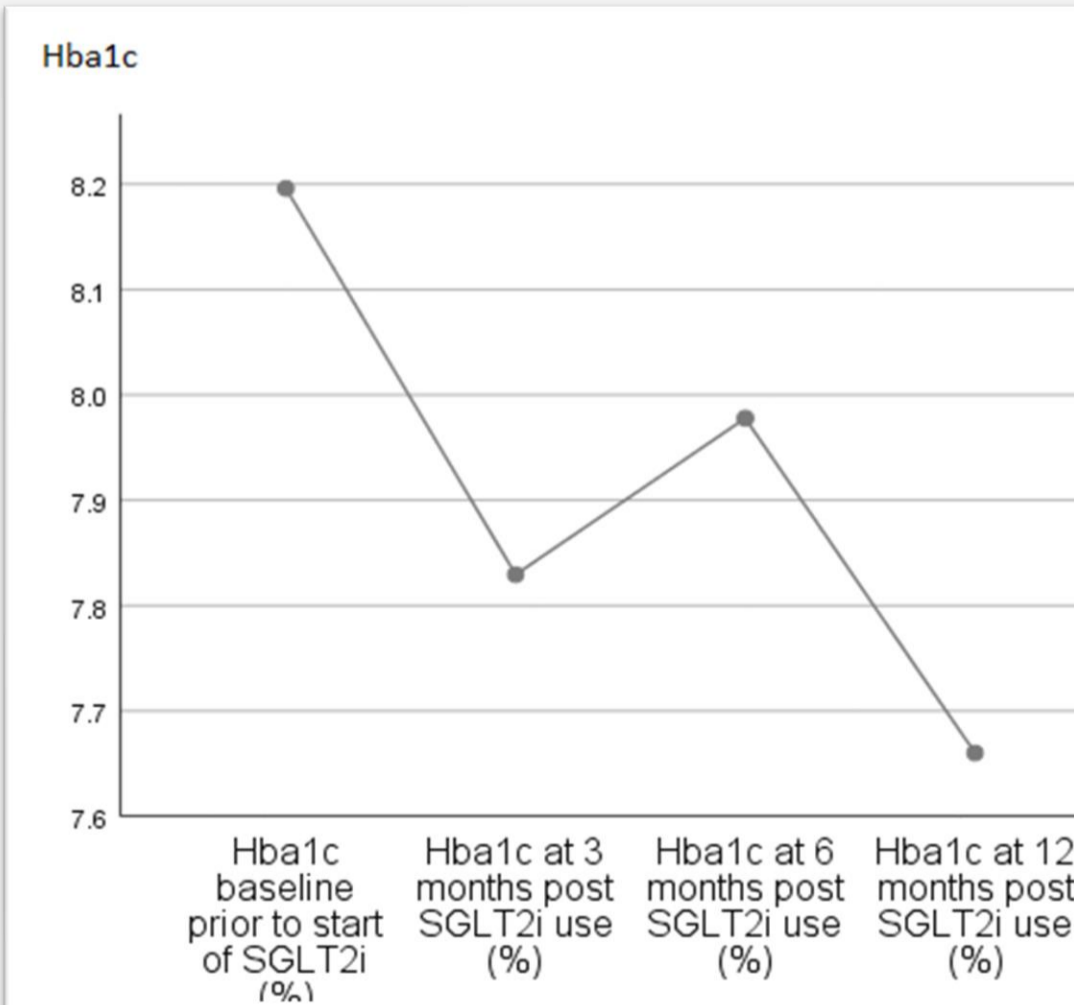
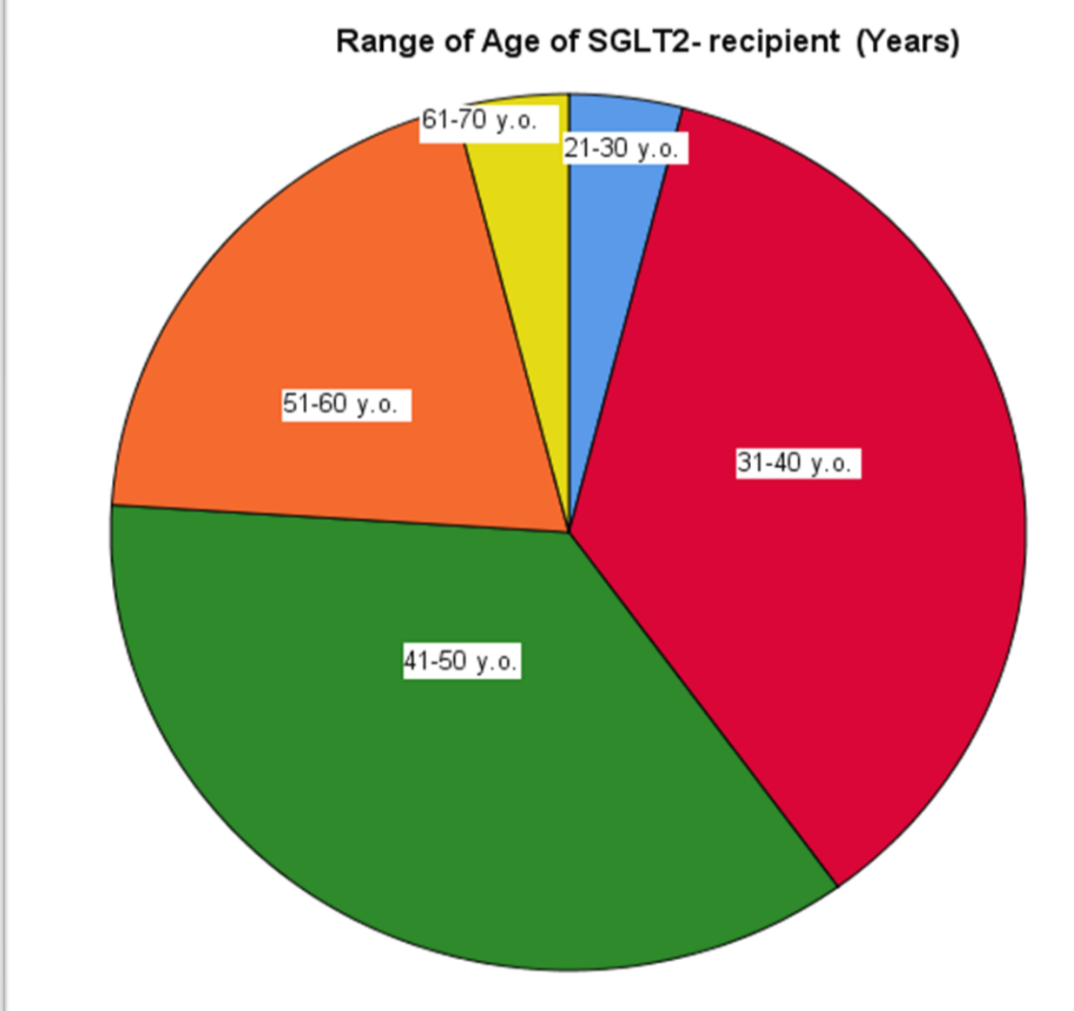
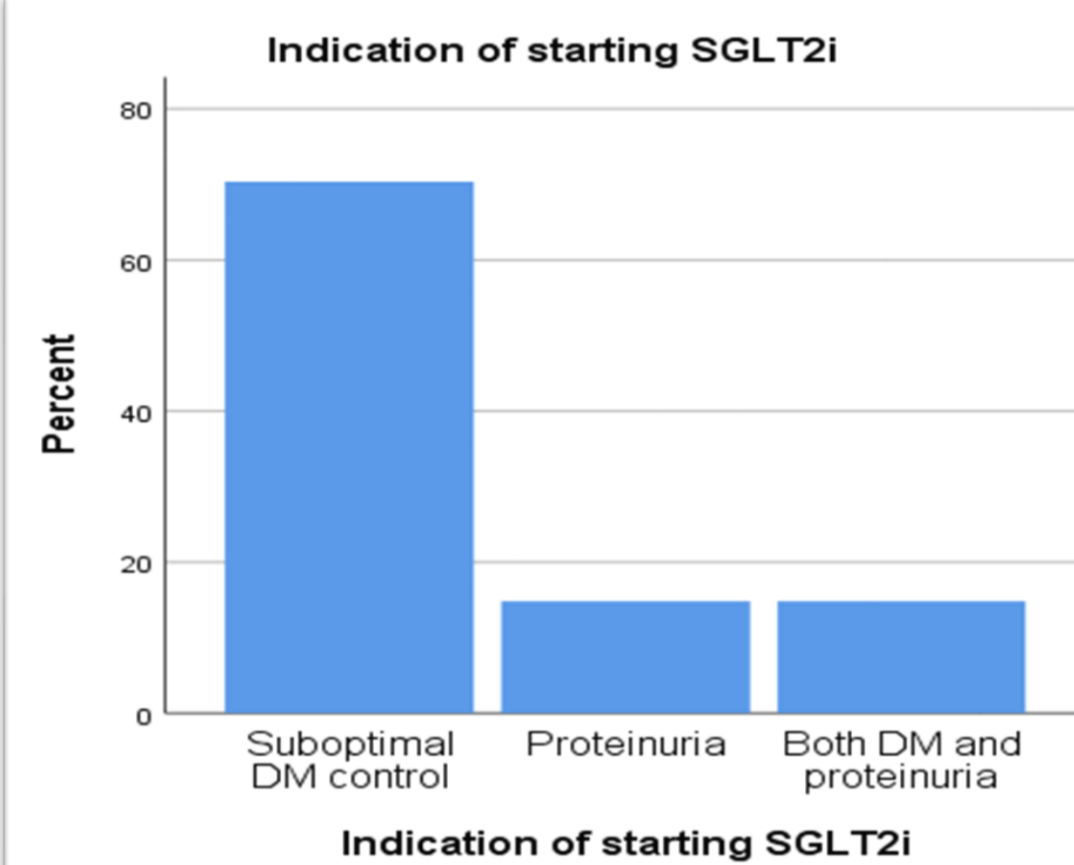
Results

A total of 234 KT patients were identified and 27 patients (11.5%) were on SGLT2-i. Within then SGLT2-i cohort, male predominates with 88.9%. By racial distribution, Chinese was predominant (57.7%), Malays (25.9%) then Indians (15.4%). The median age for the initiation of SGLT2-I was 50 (youngest was 31; oldest was 68).

The indications for SGLT2-i were mostly suboptimal diabetic control (70.4%) with associated proteinuria (14.8%) but 14.8% patients were started only due to proteinuria. Medical history of DM was present in 92.6%, while the prevalence of hypertension was 92% with concomitant RAS blockade in 51.9%.

Mean baseline creatinine at SGLT2-I initiation was 109.2 umol/L while at 6 and 12 months respectively were 105 and 116umol/L with positive statistical correlation. Mean baseline Hba1c was 8.2% (range; 6.1–12.9%), 6-month at 8% and 12-month at 7.7%, with strong statistical correlation. Mean baseline uPCR was 192mg/mmol, while at 6 and 12 months were 170 and 226mg/mmol respectively.

In term of safety profile, only one patient developed UTI (3.7%), while no occurrence of DKA, Fournier's gangrene, or AKI requiring cessation of SGLT2-i. 4.8% patients developed borderline allograft rejection.



Discussion

SGLT2-i is used widely among KT patients in UMMC with relatively good safety profile. SGLT2-i was started at low level creatinine, and majority were either with poorly controlled diabetes or in combination with proteinuria.