

METHODOLOGY

We enrolled 196 patients who failed to reach the HbA1c target below 7% with metformin and DPP-4 inhibitor and were given add-on lobeglitazone. We checked the change in HbA1c and insulin resistance index between the groups on lobeglitazone segregated into those who discontinued the medication (stop group), who were lost to follow-up (lost group), and those who continuously took the medication (maintain group). Other clinical characteristics were also compared between groups.

RESULTS

The mean age and duration of diabetes was 61.4 and 10.1 years, respectively. The mean BMI was 26.6. The fasting c-peptide level was 2.62ng/mL and HOMA-IR was 3.87. The mean HbA1c level before add-on therapy was 7.82 ± 0.67. Lobeglitazone was discontinued in 56 patients after a mean of 3.5 years due to poor glucose control, while 51 patients were lost to follow-up. Ninety patients continued the medication for up to 5 years. HbA1c level after six months of add-on Lobeglitazone improved by 0.78 ± 0.99, 0.99 ± 0.98, and 0.92 ± 0.63 in each group. Initial HbA1c improvement was lower in those who stopped taking it. Diabetes duration was not different among the groups, but fasting C-peptide level and improvement of HOMA-IR were higher in those who maintained Lobeglitazone.

CONCLUSION

Lobeglitazone as an add-on to metformin and DPP-4 inhibitor combination was effective. The fasting C-peptide level and improvement of HOMA-IR were higher in the maintain group.

KEYWORDS

lobeglitazone, long term, combination, HOMA-IR

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COMPARISON OF THE CHRONIC KIDNEY DISEASE PROGRESSION IN TYPE 2 DIABETES BETWEEN DIABETES CLINIC AND INTERNAL MEDICINE CLINIC

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INTRODUCTION

There was no study to compare the rate of chronic kidney disease progression among patients with diabetes consulting in diabetes and internal medicine clinics. The present study aimed to compare the rate of renal progression and the risk factors for chronic kidney disease among patients in the diabetes and internal medicine clinics to improve the management and delay progression of renal impairment.

METHODOLOGY

Data were collected in Rajavithi Hospital from January 1, 2017 to January 30, 2021 in the retrospective cohort study. The inclusion criteria were patients with type 2 diabetes mellitus and CKD stage 3a or 3b in diabetes and internal medicine clinics. Baseline characteristics included age, sex, body weight, body mass index, comorbidities, blood chemistries composed of estimated glomerular filtration rate (eGFR), microalbuminuria, low-density lipoprotein (LDL), fasting blood sugar (FBS) and hemoglobin A1c (HbA1c) as well as medication prescription comprising of angiotensin-converting enzyme inhibitors (ACEIs) or angiotensin receptor blockers (ARBs), sodium-glucose cotransporter type 2 (SGLT2) inhibitor, glucagon-like peptide-1 receptor agonist (GLP-1 RA) and statins. In addition, data from nephrology consultations were also collected. The primary outcomes were GFR change and CKD stage progression after two years of follow-up.

RESULTS

The number of patients who had CKD stage progression for two years who were treated in a diabetes clinic was significantly lower than those treated in an internal medicine clinic (37.1% [n = 124] vs. 52.7% [n = 184], $p < 0.001$) and the mean GFR change after two years was significantly different (-6.30 ± 4.21 vs. -8.51 ± 5.14 , $p < 0.001$). After adjusting for covariates in repeated measurement analysis, it was found that the GFR decline and CKD stage progression was slower in patients treated in the diabetes clinic than in those treated in the internal medicine clinic but the difference was not statistically significant. Patients using ACEIs or ARBs, statin, SGLT2 inhibitors, and GLP-1 RA and seeing nephrologists were significantly higher in the diabetes clinic than internal medicine clinic.

CONCLUSION

No significant difference was observed in the change of GFR or CKD stage progression between patients treated in the diabetes clinic and those treated in the internal medicine clinic, during the two-year follow-up period of our study. Further studies with longer follow-up periods are needed to investigate the long-term treatment outcomes for renal impairment in these patient populations.

KEYWORDS

chronic kidney disease, diabetes clinic, Internal medicine clinic, type 2 diabetes mellitus