STUDENTS' CORNER
LETTER TO THE EDITOR

Finerenone: A game changer for chronic kidney disease patients with type 2 diabetes

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Dear Editor, Type 2 diabetes or (T2D) is characterized by the elevated blood glucose levels resulting from impaired beta-cell function and insulin resistance. According to the International Diabetes Federation (IDF), 1 in 10 people globally suffer from diabetes mellitus. The comparative adult prevalence rate of diabetes mellitus in Pakistan is estimated to be 30.8 %.[1]

One of the most prevalent complications of Type 2 Diabetes is chronic kidney disease (CKD). CKD is estimated to affect 50% of the population suffering from T2D.[2] Traditionally, RAAS and SGLT-2 inhibitors are used as interventions to decline the progression of CKD. While effective, a novel therapeutic option, finerenone, has recently emerged as a breakthrough in improving both renal and cardiovascular outcomes in patients with CKD and T2D.[3]

Finerenone is a non-steroidal mineralocorticoid receptor antagonist that selectively inhibits aldosterone's effects at its receptor. Unlike steroidal mineralocorticoid receptor antagonists (MRAs) such as spironolactone and eplerenone, finerenone offers significant renal protection without causing substantial elevations in serum potassium levels.[4] Clinical trials have demonstrated that finerenone significantly reduces the urine albumin-to-creatinine ratio, slows estimated glomerular filtration rate (eGFR) decline, and mitigates progression to end-stage renal disease.[5] Furthermore, finerenone does not cause significant rise in serum potassium levels which is a major side effect of steroidal mineralocorticoid receptor antagonists i.e. spironolactone and eplerenone. Thus, finerenone has almost the same effect along with a lower risk of hyperkalaemia as compared to that of steroidal mineralocorticoid receptor antagonists.[4]

Moreover, the lower risk of hyperkalaemia associated with finerenone makes it a safer alternative for long-term use. The drug's beneficial effects in combination with RAAS and SGLT-2 inhibitors are now reflected in international treatment guidelines for CKD management in patients with T2D.[3]

With the recent availability of finerenone in Pakistan, it is the need of the hour to spread the word about this ground breaking drug and revise guidelines across urban and rural health care settings of Pakistan so that mortality and morbidity can be reduced amongst patients with CKD in T2D. Through these steps, the disease burden of end stage kidney failure amongst T2D patients in Pakistan can be reduced eventually.

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References

1. International Diabetes Federation. IDF Diabetes Atlas. [Online] [Cited 2023 June 25]. Available from: URL: https://diabetesatlas.org/.
2. Fenta ET, Eshetu HB, Kebede N, Bogale EK, Zewdie A, Kassie TD, et al. Prevalence and predictors of chronic kidney disease among type 2 diabetic patients worldwide: systematic review and meta analysis. Diabetol Metab Syndr 2023;15:1–12. doi:10.1186/s13098 023 01202 x
3. Alicic RZ, Neumiller JJ, Tuttle KR. Combination therapy: an upcoming paradigm to improve kidney and cardiovascular outcomes in chronic kidney disease. Nephrol Dial Transplant 2025;40:i3–i17. doi:10.1093 ndt/gfae212
4. Nugroho P. Improving renal protection in chronic kidney disease associated with type 2 diabetes: the role of finerenone. Endocr Metab Immune Disord Drug Targets 2025;25:23-9. doi:10.2174/0118715303350851241021105850.
5. Bakris GL, Agarwal R, Anker SD, Pitt B, Ruilope LM, Rossing P, et al. Effect of finerenone on chronic kidney disease outcomes in type 2 diabetes. N Engl J Med 2020;383:2219–29. doi:10.1056/NEJMoa 2025845

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