

Finerenone in DKD: Could it be a Game-changer?

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Abstract

Type 2 diabetes is the leading cause of chronic kidney disease (CKD) worldwide. International guidelines for the management of CKD in patients with type 2 diabetes recommend control of hypertension and hyperglycemia, as well as the use of a renin-angiotensin system (RAS) blocker (an angiotensin-converting-enzyme [ACE] inhibitor or angiotensin-receptor blocker [ARB]). The sodium-glucose cotransporter 2 (SGLT2) inhibitors have also shown some promise. But despite recommended treatment, a risk of CKD progression persists, and newer therapies are always in search. Overactivation of the mineralocorticoid receptor causes inflammation and fibrosis that lead to progressive kidney and cardiovascular dysfunction. So there is always a scope of mineralocorticoid receptor antagonists (MRA) to retard the progression of DKD. Finerenone has potent antiinflammatory and antifibrotic effects and has lesser adverse events like hyperkalemia & gynecomastia than steroidal mineralocorticoid receptor antagonists due to its greater affinity and selectivity to mineralocorticoid receptor. Finerenone has been shown to reduce the urinary albumin-to-creatinine ratio in patients with CKD. Finerenone was able to reduce renal and cardiac endpoints compared to placebo with less hyperkalemia than non-selective MRA in people with DKD and proteinuria, as revealed by several studies. The mechanism of action of SGLT2i and finerenone are complimentary as SGLT2i induce reno-protection related to reduced hyperfiltration while finerenone uses to work via inhibiting the MRA pathway for inflammation and fibrosis. SGLT2i have also been shown to reduce the incidence of hyperkalemia associated with finerenone in the FIDELIO-DKD trial. Study like CONFIDENCE showed the clinical evidence that simultaneous initiation of finerenone and empagliflozin led to an early and additive reduction in UACR of 52% in patients with chronic kidney disease and type 2 diabetes, which was significantly greater than with either treatment alone. With all this promising findings, finerenone is definitely going to be game-changer as far as DKD is concerned. [*J Assoc Clin Endocrinol Diabetol Bangladesh*, 2025;4(Suppl 1): S10]

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