具有保護腎臟效果的非降血糖藥物

The renoprotective effects of non-hypoglycemic agents

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Diabetic kidney disease (DKD) is a clinical diagnosis of chronic kidney disease (CKD) in a patient with diabetes mellitus in the absence of signs or symptoms of other primary causes of kidney damage. It results mainly from microvascular and metabolic changes within the kidneys, and has a distinct histopathological pattern. Patients with type 2 diabetes mellitus (T2DM), often suffer of multiple comorbidities including obesity, hypertension, renovascular disease, recurrent urinary tract infections or drug toxicities, or may have been subjected to episodes of acute kidney injury, all which can lead to CKD independent of diabetes. Therefore, the causes of CKD in patients with T2DM may be DKD or non-DKD (NDKD), and in fact, the prevalence of DKD in kidney biopsies from patients with T2DM varies quite largely in different studies, with 14–83% of patients having biopsies compatible with NDKD and many having combined histologic features. In spite of advances in the care of patients with diabetes, the prevalence of DKD is steadily increasing and diabetes accounts for approximately half of the cases of end stage renal disease (ESRD) in developed countries (4). It is estimated that half of the patients with T2DM will develop CKD over the course of their lifetime. For nearly two decades, the only drugs indicated for the treatment of DKD included inhibitors of the renin-angiotensin system (RAS), whereby these agents have demonstrated a significant role in reversing albuminuria and slowing eGFR decline. Many Phase 3 trials conducted over the past decade with other new therapeutic agents for preventing loss of renal function failed to demonstrate treatment benefit, despite each having shown promising results in Phase 2 trials. The recently published results of the Study of diabetic Nephropathy with AtRasentan (SONAR) study, which evaluated the renal outcomes of an endothelin receptor antagonist in patients with T2DM and CKD, are thus viewed in the context of the emerging cardio-renal efficacy data of SGLT2 inhibitors