

Rapid decline of renal function in patients with type 2 diabetes with heavy proteinuria : a report of three cases

ABSTRACT

Background: Although there is a large volume of literature regarding the definition and epidemiology of type 2 diabetes nephropathy (T2DN). There has been a paucity of data focused on the rate of transition of T2 DN. Based on our personal observation a certain percentage of our incident end stage renal disease (ESRD) patients from T2DN experienced a rapid decline of renal function. Their rapid decline nature of glomerular filtration rate (GFR) of 46 to 60 mL/min per 1.73m² per year have far exceeded the KDIGO definitions of acute kidney injury (abrupt decrease in kidney function occurring over 7 days or less), acute kidney disease (acute or subacute damage and/or loss of kidney function for a duration of between 7 and 90 days after exposure to an acute kidney injury initiating event (Chawla et al Nat Rev Nephrol 241–57 2017) or even rapid decliner (eGFR declines > 5 mL/min per 1.73m² per year) (Chawla et al Nat Rev Nephrol 241–57 2017; Andrassy Kidney Int 622–623 2013). Case presentation: We describe here three cases of type 2 diabetic patients that have rapid renal deterioration with rate of decline 46 - 60 mL/min per 1.73m² per year. All the patients are heavily nephrotic. All of the renal biopsies done showed the classical diabetic changes, hypertensive changes, diffuse tubulointerstitial damage, and interstitial nephritis. All of the patients admitted to taking various form of traditional medications in hope of curing their renal disease. Conclusion: We wish to highlight that type 2 diabetics with massive nephrotic range proteinuria have enhanced risk of rapid renal function deterioration. The patients should be educated about the risks of rapid renal function deterioration when there is presence of heavy proteinuria. High grade proteinuria is likely to inflict the diffuse tubulointerstitial inflammation. The interstitial nephritis could be further worsened by traditional supplements consumption. Timely health education and advice must be undertaken to retard this unwanted rapid renal disease progression.

Keyword : Diabetes mellitus; Rapid decliners; Risk factors; Proteinuria; Tubulointerstitial inflammation traditional medications