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Diabetic Kidney Diseases: A Taiwan Nephrologist's Observations on Unmet Issues

Jin-Shuen Chen
Tri-Service General Hospital, National Defense Medical Center, Taiwan

Diabetic kidney diseases (DKD) and diabetic nephropathy (DN) are the leading causes of end-stage renal disease (ESRD), contributing to heavy medical costs in Taiwan and most developed countries. Researchers around the world, particularly endocrinologists, nephrologists and associated medical personnel, are working to manage the disease; however, many unmet issues remain regarding this complex and difficult-to-treat disease.

First of all, in recent decades, Taiwan's government and medical societies have made strong efforts to manage DKD. All our efforts will be summarized in my lecture. Furthermore, in this lecture, the definition, epidemiology, diagnosis, mechanism, treatment and prognosis of DN will be discussed according to data from Taiwan and the rest of the world. Some of the major unmet issues in DN research will be presented. The first issue is the current problems in early DN-glomerular hyperfiltration; current research on the relationship between glomerular hyperfiltration and ESRD will be presented. The second issue is current problems of diagnosis of DN, and the difference, 1) between pathological and clinical diagnosis for DN; and 2) between DN and DKD, will be discussed. The third issue concerns the current pathogenesis of DN; factors from diabetic mellitus contributing to development of DN will be discussed. Some unmet issues from endocrinologists and cardiologists will be discussed. The fourth issue is current treatment of DN, and precision medicine and care will be proposed. All unmet issues discussed in this lecture will be integrated with the findings from my studies, and potential directions for physicians and researchers will be suggested.

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