

Clinical-pathological correlations in diabetic kidney disease

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Diabetic kidney disease is a common etiology of progressive chronic kidney disease leading to end-stage renal failure. The presence of albuminuria has been regarded as a prerequisite for the diagnosis of diabetic nephropathy. However many diabetics with CKD have no proteinuria and the pathology of nonproteinuric kidney disease in this subgroup is controversial as renal biopsy is commonly not performed in these patients. The present study addresses the question: Can a classical diabetic nephropathy occur in the absence of proteinuria?

Method: We examined renal biopsies of subjects who underwent nephrectomy from 1999 to 2009 for renal cancer. They had eGFR < 60 ml/min and no microalbuminuria or proteinuria. 10 diabetics were matched with 10 non diabetics for age, hypertension and baseline creatinine level.

Results: Type II diabetic patients had advanced classical diabetic lesions in absence of proteinuria. Tubules and tubular-interstitium were relatively well preserved.

Conclusions: It is likely that a significant proportion of type 2 diabetics presenting with CKD may have K-W nodular glomerulosclerosis in the absence of albuminuria and even in the absence of microalbuminuria. Diabetic glomerulosclerosis may develop before proteinuria can be detected. Thus, relying on urinary albumin as first sign for renal involvement in type II diabetics may be too late in diagnosing and treating diabetic kidney disease.

Biography

Mordecai Popovtzer completed his Fellowship in Nephrology & Metabolism at Cedars-Sinai, and UCLA at the age of 33. He was the Director of Hemodialysis & Associate Professor of Medicine at the University Of Colorado School Of Medicine at age 35. Currently he is the Chief of Nephrology since 2003 at the South AZ VA Health Care System & Professor Department of Medicine, University of Arizona. He has published 234 papers (200 peer reviewed journals) and 4 chapters in Nephrology Text Books. He is the elected member at American Society of Clinical Investigation ("Young Turks") and has chaired multiple ASN sessions. He is the editor for several reputed journals.

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