

9th International Conference on

Nephrology: Kidney & Therapeutics

September 29-30, 2016 Orlando, USA

Diabetic Nephropathy: Unraveling the perfect storm

Sujit Bhattacharya

Calcutta Medical Research Institute, India

Diabetes affects the kidneys and once it is clinically evident it is like a perfect storm, one of the most dreaded micro vascular complications. It not only increases the morbidity and mortality. It shortens the life span by more than 20 years and severely affects the quality of life. It also has significant socioeconomic implications. Currently approximately 50% of ESRD or dialysis patients are Diabetic and the figures are increasing because of the increasing incidence of Diabetes itself.

The epicenter of the storm is the altered metabolic milieu in Diabetes which drives the changes in the glomerular capillaries with consequent glomerulosclerosis coupled with tubule interstitial inflammation, atrophy and fibrosis mainly mediated by TGF-beta and other intermediate molecules. The changing concept of glomerular and tubular injury as well as the pathogenic mechanisms will be unraveled.

The changing epidemiology along with genetic, ethnic and other intercurrent or concurrent metabolic or other risk factors will be discussed. The gold standard of diagnosis is micro albuminuria but it lacks specificity and sensitivity and hence the need for markers for early diagnosis, progression or preservation of renal function.

The duration and the degree of glycemic control can modify the natural history of the storm. Once evident, control of all the modifiable risk factors is the only option. We will discuss the general measures and effective control of hypertension, diabetes and lipid parameters along with other metabolic changes. Emerging strategies of glucose control and its efficacy and benefit with optimal RAAS blockade is an area of interest as it may improve long-term hard endpoints including death. However, we are still short of achieving any improvement beyond a third and yet to overcome the residual risk of the tsunami in the years to come. Hence the way forward is better understanding of the epidemiology, cause and the natural history of the Diabetic nephropathy to find out the most effective multifactorial strategy which can save millions of dollars and thousands of life. Till then, the best control of the storm is primary prevention in the backdrop of the grim forecast of the twin epidemic of Diabetes and Obesity for the next few decades.

Biography

Sujit Bhattacharya is currently working as a faculty of medicine in Department of Endocrinology (Medicine) at SCB Diabetes & Hormone Research Foundation and Calcutta Medical Research Institute, Kolkata.

sujit_dr@yahoo.com

Notes: