

# 7<sup>th</sup> Indo Global Diabetes Summit and Medicare Expo

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## Diabetic nephropathy- What is new?

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Diabetic nephropathy (DN) refers to a characteristic set of structural and functional kidney abnormalities in patients with diabetes. It is a secondary glomerulopathy. DN is characterized by persistent albuminuria, decline in GFR, raised blood pressure and enhanced cardiovascular mortality. The natural history of DN (typically defined in type1) progresses in 5 stages hyper-filtration, microalbuminuria, macroalbuminuria, decline in GFR and ESRD. Recent studies show that early progressive decline in GFR precedes the onset of microalbuminuria and its progression to macroalbuminuria. The terms microalbuminuria and macroalbuminuria are replaced by moderately and severely increased albuminuria respectively. The previously unclassified histology of DN is now classified into 4 classes by ISNRP for uniformity in reporting. Interstitial eosinophilic aggregates are assuming importance in DN and are not considered as allergic interstitial nephritis. Treatment of diabetes and DN had undergone several advances. SGLT2 inhibitors, though thought to have lower pharmacodynamic activity in CKD have shown improvements in weight and fewer episodes of hyperkalemia due to osmotic diuresis. Several nephro-protective strategies were tried in diabetic nephropathy. Nephroprotection by dual RAAS blockade did not prove beneficial. Several molecules tried for nephroprotection in DN are Pentoxifylline, Vitamin d3, Protein kinase C inhibitors, Endothelin antagonists, Allopurinol, Antioxidants, RAGE antagonists, Bardoxolone methyl, Mycophenolate mofetil etc. Caloric restriction is a new anti-aging experimental paradigm. It increases Sirtuins which are thought to have cyto-protective and anti-inflammatory activities in the cell. Drugs targeting the epigenetic changes were also tried in DN. Nephroprotective strategies in DN remains the area of intense research.

## Biography

D Sree Bhushan Raju is presently the Head of Dept. of Nephrology at Nizam's Institute of Medical Sciences, Hyderabad. He obtained his DM (Nephrology) from AIIMS, New Delhi along with a gold medal in DNB. He is the recipient of several fellowships like FISN, FICP and FIACM. He has several publications in national and international journals and is also the reviewer for several journals.

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