Management update of diabetic nephropathy

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Obesity is increasing globally and the incidence increasing over last 2 decades because of changes in life style and dietary habits. Obesity is closely related to metabolic syndrome which associates with insulin resistance and impaired glucose tolerance, hypertension and hyperlipidemia. Diabetes mellitus with both types is known to associate with development of renal disease. Microalbuminuria is the first sign of diabetic nephropathy. It is more common in African and Pima Indians. Diabetic patients should be screened for microalbuminuria after 5 years from onset of diabetes mellitus. Management of diabetic nephropathy includes strict glycemic control weight loss (type 2 DM), renin-angiotensin inhibition and quitting smoking. ACE inhibitors and angiotensin receptor blockade known to halt the progression of kidney disease in diabetic patients. Angiotensin blockade is known to improve proteinuria and inhibition of transforming growth factors which is known as mediator of renal fibrosis. This is proved by many trials: IDNT, ADVANCE, DETAIL and REENAL. Vitamin D has shown to be effective in decreasing the incidence of diabetes mellitus among patients who were known to born as premature delivery or small for gestational age. Other studies showed that vitamin D supplementation can improve glycemic control and decrease HbA1c. Vitamin D can enhance insulin secretion by improving glucose transport through GLUT-4 receptors. Vitamin D deficiency associates with secondary hyperparathyroidism and this will increase intracellular calcium and impair insulin sensitivity.

Biography
Osama Y Safdar has completed his PhD at the age of 24 years from King Abdulaziz University in 2008. He did his fellowship training in Pediatric Nephrology in McGill University at Montreal from 2009 to 2012. He is the Director of Pediatric Nephrology fellowship program at King Abdulaziz University Hospital and Deputy Chairman of Department of Pediatrics at King Abdulaziz University. He has published more 10 papers in local and international medical journals.

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