

TITLE

T-D-CPHS - treating diabetic patients with chronic renal disease using pre-mixed insulins having higher proportion of soluble insulin

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Diabetes mellitus is a leading cause of chronic renal insufficiency and later end-stage renal failure; on the other hand, chronic renal disease has been linked with alterations in carbohydrate and insulin metabolism. The pharmacokinetics of various insulin preparations has not been well studied in patients with varying degrees of renal dysfunction. There exist sparse guidelines regarding appropriate dosing adjustment of insulin. Further, chronic renal insufficiency is associated with variably impaired insulin sensitivity. These patients may show about 2.5-fold increase of insulin elimination half-life. There are erratic insulin secretory patterns, as well. In summary, CRF is associated with a complex disruption of the processes of insulin release and resistance; its metabolism and elimination.

These facts are important while treating the diabetic patients suffering from a variable chronic renal deficiency, because they will entail adequate therapy adjustments in a patient with declining renal function decline. The rational insulin therapy will improve glycaemic control, a reduced incidence of hypoglycaemia and a retarded progression to end-stage renal disease. The adequate glycaemic control has also been associated with a reduced cardiovascular morbidity and mortality in these patients.

There exists opinion that in patients with end-stage renal disease, long-acting insulin preparations should be avoided because of increased hypoglycaemic events. A rapid acting insulin preparation on the other hand may entail less than desirable uniform blood sugar control. In this background, treating the diabetic patients with chronic renal disease using premixed insulin preparations having a higher proportion of soluble (rapid acting) insulin may be most plausible option.

Biography

Vinod Nikhra, M.D. is Fellow of International Medical Sciences Academy and Fellow of Royal Society of Medicine. He is trained in endocrinology and clinical nephrology. He has authored 4 books and contributed more than 30 papers in reputed journals and has been a reviewer for International Journal of Obesity (the Nature group) and Family Practice (the Oxford group). He is a senior consultant physician and on teaching faculty at Hindu Rao Hospital, Delhi, India. He can be found on www.vinodnikhra.com.