Multidisciplinary approach to predialysis patient

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The prevalence of chronic kidney disease has reached epidemic proportions with 10% to 12% of the population and 50% of the elderly showing signs of kidney dysfunction. Today, the different stages of disease progression to dialysis are recognised and influence the risks and conditions associated with kidney disease itself, such as anaemia, malnutrition and bone disease which affect both morbidity and mortality. Treatment is comprehensive and requires proactive protection while reducing the risk of cardiovascular complication. Timely referral of patients ensures adequate time for the proper preparation of these patients for a form of replacement therapy in the form of dialysis or transplantation. Educating patients before dialysis in order to increase "health literacy" results in a number of benefits for patients, including: Delaying the onset of dialysis, reducing morbidity and mortality, avoiding complications of kidney disease, preparing patients for the start of dialysis and increasing the quality of life of these patients.

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Circulating vascular endothelial growth factor in type 2 diabetes mellitus with diabetic nephropathy

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Mechanisms underlying the development of diabetic kidney disease are complex. Among the many potential pathogenic mechanisms responsible for the development of diabetic kidney disease, the angiogenic growth and survival factor, Vascular Endothelial Growth Factor (VEGF) has been suggested to be an important player. The aim of this study was to evaluate circulating vascular endothelial growth factor level in diabetic nephropathy and to assess whether its level is related to the severity of diabetic nephropathy in type 2 diabetic patients. 38 type 2 diabetic patients and 8 healthy subjects of matched age, sex and BMI served as a control group in the study. The studied patients were categorized into three groups according to urinary albumin excretion as follows: Group 1: Comprised of 13 normoalbumuric (UAE <30 mg/24 h) type 2 diabetic patients; Group 2: Comprised of 12 microalbumuric (UAE 30–299 mg/24 h) type 2 diabetic patients and; Group 3: Comprised of 13 macroalbumuric (UAE ≥300 mg/24 h) type 2 diabetic patients. Sera were separated by centrifugation and kept frozen at (-20°C) for analysis of serum total VEGF by enzyme immunoassay (EIA) method using Accucyte® human VEGF kits supplied by Accucyte® (USA). Fundus examination, electrocardiograph and abdominal ultrasound were done. There was significant increase in serum VEGF in nephropathic group compared to non nephropathic group (7.546±3.579 versus 19.344±11.649, P=0.0001). There was significant increase in serum VEGF in macro-albuminuric subgroup compared to micro-albuminuric subgroup (26.046±11.973 versus 12.083±5.396, P=0.001). There was significant increase in serum VEGF in non nephropathic group, nephropathic group and in all patient series compared to control group (7.546±3.579, 19.344±11.649, 15.307±11.151 and 2.737±1.056 respectively). There was significant correlation between serum VEGF, UAE (P=0.69, R=0.0001), (serum creatinine (P=0.45, R=0.024). The results of the present study on a quiet homogeneous group of diabetics with regard to age, sex, BMI clarified that VEGF may be a good index for early detection and determination of the severity of diabetic nephropathy due to type 2 diabetes.

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