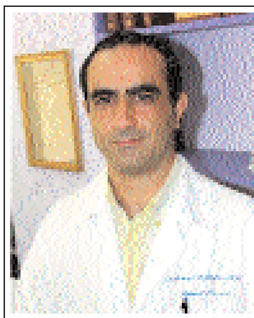
Kidney Transplantation



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Chronic Renal Failure (CFR) is a major burden that affects patients of all age groups.
CRF usually results in End Stage Renal Disease (ESRD). Despite the decreased incidence of post-infectious Glomerulo-Nephritis, the number of patients with ESRD has been increasing. This is due to major advances in medical care. Patients are now living longer and suffer for longer periods of time the complications of hypertension, diabetes and atherosclerosis.
When the Glomerular Filtration Rate (GFR) becomes less than 15ml/min, kidney replacement therapy becomes a serious consideration. The options for patients with ESRD are limited to either dialysis or kidney transplantation. Although dialysis is life saving it is considered inferior when compared to transplantation. In the case of hemodialysis, the patient has to be bound to the dialysis machine for several hours, three times a week, needs to usually be escorted by a family member to the dialysis center, and has to deal with all the complications of dialysis and access to surgery. A significant addition is the huge cost of dialysis and its complications including loss of working hours.
The option of kidney transplantation is currently accepted as a cost effective treatment for ESRD that offers better quality of life; yet not without its related obstacles and problems. Before being accepted as a candidate for transplantation, a patient has to undergo a work-up protocol set by the transplant committee at Hammoud Hospital University Medical Center.
A major limitation to transplantation is organ shortage. A kidney can be donated from a living person or harvested from a brain dead patient. A living related donor has to be related to the receiving patient either genetically (first degree relative) or socially (as in husband and wife). Most kidney transplantations in the USA and Europe are done from cadaveric (brain dead) donors. This is not the case in developing countries such as Lebanon. Most patients with ESRD are dying from the complications of dialysis without having the chance of getting a kidney for transplantation. A cadaveric donor can donate two kidneys, one heart, one liver, two corneas which helps so many precious patients. This is called the gift of life. Therefore, lot of serious work still needs to be done to ensure a better understanding of organ donation.
The technique of kidney transplantation is currently well standardized with very low surgical morbidity and mortality. The kidney is transplanted to the retroperitoneal space in the groin area. The renal artery is usually anastomosed to the external iliac artery, the renal vein to the external iliac vein and the ureter to the bladder. Under optimal conditions, the transplanted kidney should start to make urine in the operative field.
On April 16 2003, the first kidney transplantation procedure was done in South Lebanon at Hammoud University Hospital. Since then kidney transplantation became a standard procedure at our institution with an average of 25 cases per year. We performed to date 136 cases with no donor or recipient mortality. The kidney graft survival at one year is > 90%. The age range is (9-72) years old. Of these 6 patients have type 1 diabetes, 19 have type 2 diabetes and 17 had to undergo open heart surgery or cardiac stenting before transplantation and 7 patients had some type of carcinoma. Eight patients had either Hepatitis B or C prior to transplantation. Fourteen underwent kidney retransplantation.
In the post-operative period special efforts are directed at minimizing the incidence and severity of acute rejection episodes and prophylactic measures are taken to prevent infections especially CMV infection. The immuno-suppressive medications must be used judiciously since over-treatment may cause toxicity and many adverse side effects; whereas under-treatment may tip the balance toward an acute rejection episode or ongoing sub-acute chronic rejection. Therefore, close and periodic follow-up is required.
To achieve good long-term results, the patient has to be committed and compliant with the follow-up process. Thus building a solid and trustful relationship between the patient and the transplant team cannot be overemphasized.

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