EDITORIAL

End Stage Renal Failure

By Ahmed Salim Al Arrayed*

The syndrome of chronic renal failure or uraemia is present when creatinine clearance is less than 25 per cent of normal. It should be emphasised that the definition of chronic renal failure is an arbitrary one; it has been chosen as a point at which a patient's abnormal renal function begins to make a significant impact on many aspects of medical care[1].

Estimated incidence of end stage renal failure worldwide is 80 patients per million of population, per year. In GCC countries of 11 million about 880 patients per year will require one kind of treatment of end stage renal failure. In the Arab World of 180 million 14,400 patients per year will require the same treatment[2,3].

Major causes of end stage renal failure in Bahrain & GCC contries[3] are :

1.	Glomerulonephritis	52%
2.	Pyelonephritis	24%
3.	Polycystic Kidney Disease	7.2%
4.	Renal stone	3.5%
5.	Diabetic Nephropathy	2.2%
6.	Uncertain	6.2%

In Salmaniya Medical Centre we are offering haemodialysis to our patients with end stage renal failure. Currently we have 30 patients on regular haemodialysis and 2800 haemodialysis were done in 1987 for patients with chronic and acute renal failure.

There is progressive increase of haemodialysis at Salmaniya Medical Centre. This is because more physicians and patients are aware of the availability of the treatment.

There is general impression in the public and patients that the haemodialysis will correct all the metabolic abnormalities due to end stage renal failure. Systemic and metabolic complications can persist or appear during haemodialysis. They are due to the fact that the removal of toxic metabolite by dialysis is not as effective as that performed by normal human kidney. We are not yet able to replace complete renal function with haemodialysis. The patient may have many intercurrent medical problems which were there before dialysis or which may arise as a result of dialysis.

In each patient, the decision for or against chronic haemodialysis should be based on the predictable risk involved in treatment, against the quality of life which can be expected.

Renal transplantation is done in Kuwait for most of our patients who have related live donor. The preliminary tests including kidney function test, IVP, abdominal CT scan, HBS antigen, are done in Bahrain and histocompatibility test for the donor and the recipient are done in Kuwait.

*Consultant Physician & Incharge of AKU
Department of Medicine
Salmaniya Medical Centre
State of Bahrain

Some patients have cadaveric kidney transplant or non-related live donor kidney on their own expense in centres abroad.

They are all followed up in Salmaniya Medical Centre renal unit for regular renal function test and adjusting the immunosuppression dose and observing early signs of rejection.

The cost of hospital haemodialysis for a Bahraini patient per year is approximately BD 8,500/−. The cost of renal transplantation done once in life is approximately BD 8,000/−. The running cost for follow-up and the use of immunosuppressive medications for patients who had successful transplant is approximately BD 2,500/− per year.

Kidney transplantation is the preferred treatment of uraemic patient. Functioning kidney transplants permit a degree of physical well-being and rehabilitation unattainable by the most intensive haemodialysis. The cost of treatment is cheaper compared to haemodialysis.

The survival rate is better with transplant patients and the complication rate is less except for infection[4].

Causes of Death from Cardiac and Vascular[4] Disorders, According to Mode of Treatment

Causes of death	*Haemodia-lysis*	*Peritoneal dialysis*	*First transplant*
Cardiovascular			
Myocardial ischaemia and infarction	11%	13%	11%
Heart failure	15%	8%	4%
Cerebrovascular accident	12%	11%	7%
Other cardiovascular causes	19%	15%	10%
Total cardiovascular deaths	57%	47%	32%
All infectious causes	12%	19%	33%
All other causes	31%	34%	35%
TOTAL	**50415**	**6110**	**7000**

The number of patients seen in Bahrain with end stage renal failure does not justify an establishment of a kidney transplant centre but the GCC countries with a population of 11 million would require at least four transplant centres. Kidney transplant requires campaign of public education to accept the idea of donating organ like kidneys. Also there is a need to establish cadaveric kidney bank.

REFERENCES

1. Marsh FP. Post-graduate nephrology. 1st ed. London: William Heinmann Medical Books Ltd, 1985.

2. Festenstein H. Long-term follow-up in London transplant group recipients of cadaver renal allografts. N Engl J Med 1986;1(314)(Jan):7−14.

3. Abouna GM. Current status of clinical organ transplantation, 1st ed. Boston: Martinus Nijhoff Publishers, 1984.

4. Raine AEG. Hypertension, blood viscosity, and cardiovascular morbidity in renal failure: Implications of Erythropoietin therapy. Lancet 1988;1(Jan):97−99.