

Addressing the Plight of Patients with Kidney Failure

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In this issue of the *Annals*, there are 5 papers dealing with kidney diseases which have attracted the attention of this editorial. The paper authored by Ang et al,¹ reviewed the quality of care in chronic kidney disease (CKD) patients in the National Healthcare Group Polyclinics (NHGP) from 2007 to 2011, reported that the number of CKD patients had increased more than 2-fold from 4734 in 2007 to 10,245 in 2011. In 2011, majority of patients with stage CKD 3A (39.6%) and 3B (37.6%) had hypertension (98.2%), dyslipidaemia (97.2%) and diabetes mellitus (68.7%). In these patients, the study reported that the blood pressure and low density lipoprotein (LDL) control were encouraging but glycaemic control could be improved further.

Singapore has the fifth highest incidence of end-stage renal failure (ESRF) in the world and the highest incidence of diabetic nephropathy causing ESRF compared to other countries.^{1,2} The more developed Asian countries including Singapore, Malaysia, India and China are now faced with the burden of diseases associated with lifestyle changes like diabetes mellitus and obesity.

Despite the decreasing prevalence of CKD associated proteinuria due to chronic glomerulonephritis (GN) and hypertensive nephrosclerosis, as a result of programmes to control and retard progression in these 2 diseases, the dilemma of the epidemic proportion of diabetic nephropathy (Diab Nx) is far from being contained. In Singapore, the incidence Diab Nx as a cause of ESRF was 17% in 1983, 58% in 2004, and a further risen to 63% in patients initiating dialysis in 2008.³ Angiotensin converting enzyme inhibitors/Angiotensin II receptor blockers (ACEI/ARB) has been around for years, but the incidence of ESRF due to Diab Nx has yet to stabilise.⁴ There is also a growing concern that the long-term use of ACEI/ARB could promote renal fibrosis.⁵ This could be one explanation of why the incidence of ESRF due to Diab Nx has not plateaued despite the stabilisation of the incidence of ESRF.

Fortunately, despite the projection for the number of patients with CKD who would eventually require renal

replacement therapy (RRT), many amongst them would meet with an untimely demise due to increased cardiovascular (CVS) morbidity and deaths so that the actual number of patients requiring RRT is much less. In this respect, the paper by Tan et al,⁶ "Why patients say, 'No' to RRT" is pertinent. Their analysis of 24 patients showed that most patients who said 'No' to RRT did not say so themselves. In fact, it was the family members or caregivers who had said, 'No'. Such patients would be denied RRT because of the lack of family or social support. In practice, these would be those patients whose relatives are reluctant to take them home after discharge, meaning they usually have no home to go to. This group also includes those whom the relatives would bring home, but only for conservative treatment at home without either haemodialysis or peritoneal dialysis to sustain life, because either very few caregivers are willing to bring these patients to and from the dialysis centres for dialysis thrice weekly or not many caregivers can help to perform the peritoneal dialysis exchanges 4 times a day at home. Tan et al⁶ had mentioned that more must be done to improve this social structure which would help support patients and their families who desire RRT for the patients. In this respect, some of our voluntary welfare organisations (VWO) like the National Kidney Foundation (NKF) and Kidney Dialysis Foundation (KDF) do provide transport to ferry patients to and from the dialysis centres from their homes for those patients on haemodialysis in the dialysis centres.

Similarly, for those patients on peritoneal dialysis (PD), if they choose to have Automated PD (APD) instead of the traditional CAPD (Continuous Ambulatory Peritoneal Dialysis) which requires 4 intermittent PD exchanges throughout the day in contrast to APD where the machine automatically performs the dialysis at night when the patient is asleep; the caregiver can help with the initiation of dialysis for the patient at night after he or she returns from work in the evening, instead of having to perform the 4 PD exchanges in the day time as in the case of those on CAPD.

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Many years ago, many patients could not afford RRT in order to stay alive. Today, because of the various VWOs providing subsidised RRT and medifund assistance from the State, no Singaporean should be denied RRT because of financial reasons. But sadly, it is difficult to mandate their family members to provide the necessary support to enable their sick relatives with ESRF to receive RRT and thus stay alive.

George et al⁷ in an article on “Right Siting for CKD care”, a survey of General Practitioners (GPs) in Singapore in a scheme where GPs participate in the care of CKD patients together with nephrologists in the restructured hospitals addresses the need for more doctors to care for the increasing number of CKD patients. In the Right Siting Scheme, patients make alternate visits between their nephrologist and the general practitioner (GP) close to their homes. The main attraction of the scheme is that moving care out of hospital and closer to patients’ home will lead to cost savings and improved quality of care as well as reduce overcrowding at polyclinics and specialist outpatient clinics (SOC). This shared care programme should be encouraged. For patients with CKD 2 to 3, the nephrologists can see the patients once a year with the GPs in between. At this stage, there is nothing much in the way of intervention on the part of the nephrologist apart from monitoring the progress of the patients and ensuring that the patient takes his medication faithfully. I agree with the authors that this scheme can be improved with more GPs having training to enable earlier and better recognition of CKD and familiarity with guidelines concerning management of CKD. Another way is to train nurse practitioners to manage these patients, so that they could see the patients in between visits with the nephrologists. Institutions are already doing so with the help of nurse practitioners to reduce the workload of busy specialists. We need to train more nurse practitioners so that the increasing burden of CKD in the community can be shared.

The paper by Loy et al⁸ reported that between 1998 and 2007, there were 5505 patients with ESRD followed up over a median of 3.9 years and of these, 3.9% of them developed cancer which was 1.66 times that of the general population. The cancers were found in the native kidneys, tongue and multiple myeloma. I agree with the authors that cancer screening is not cost effective in the dialysis population. Cardiovascular death is the leading cause among these patients and about 30% of these patients undergoing dialysis die within the first 2 to 3 years on dialysis due to cardiovascular causes.⁹ The cardiovascular death would precede the cancer demise in many of these cases.

The last paper by Ong et al¹⁰ is on Health Related Quality of Life (HRQoL) in ESRF patients on the “Renal Transplant Waiting List” to assess how these patients may be affected

by the stress of the long wait and to identify factors that could impact on their HRQoL.

Factors like ethnicity, marital status, employment status, type of dialysis were found to have an influence on the HRQoL. It was found that Chinese patients fared better than other races, married people fared better than singles, being employed was a positive factor, and those on haemodialysis fared better than those on peritoneal dialysis (PD), but age was not a significant factor. The authors suggested that a more holistic approach by healthcare professionals and the help of support groups may be worthwhile for these patients. However, it must be understood that for potential kidney transplant recipients on the Transplant Waiting List, being selected to receive a kidney transplant is not on a first come first serve basis.

Various factors are taken into consideration in the selection process of suitable recipients for renal allografts, among which and perhaps with the greatest weightage would be the Tissue Typing and ABO blood group compatibility. Points are also awarded for duration of waiting time on the waiting list, age and other socioeconomic factors and freedom from other illnesses like hepatitis B and C.

So whilst the average waiting time may be about 7 to 8 years, someone with a very good match with the deceased donor in terms of tissue type, even though he may have been on the waiting list for 3 to 4 years may be chosen over another patient who has waited 10 or more years. It is a useful reminder that before the Human Organ Transplant Act (HOTA) was introduced in Singapore in 1987, there was an average of 5 cadaveric renal transplants each year. However, after the introduction of HOTA, the average number of cadaveric transplants increased to 45 yearly.¹¹ This is a 9-fold increase. In 1987, we had about 300 patients on the waiting list, today we have about 900 patients. A patient with blood group O would have to wait for a much longer time since there are many more patients with blood group O, compared to a patient with blood group AB which is less common. When one considers all these factors, the chances of getting a cadaveric kidney are much better than before and for the time being, it behooves those patients on the cadaveric kidney transplant waiting list to maintain themselves well on dialysis, keeping faith with their dialysis schedule and other medication as well as their renal diet in preparation for the day when they are called upon to receive a kidney transplant.

Striking the Great Transplant Lottery is a big deal, probably the greatest event in the patients’ life. These patients live from day to day, hoping to be the lucky one called upon to receive a kidney. It is likely that this waiting will produce great stress and anxiety. Social workers and transplant coordinators working with these patients should engage them with more counselling sessions to help them to de-stress.

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