15 ETHICAL ISSUES OF KIDNEY TRANSPLANTATION

Dr E. Farrugia

Historical background

Up to 1982, in Malta there was very little choice available for persons with advanced renal disease. Some patients went overseas seeking a transplant abroad. In 1982 the first haemodialysis was performed, but only on patients who were scheduled to receive a living donor transplant from a family member. From 1984 onwards were included young non-diabetic end-stage renal failure patients who were candidates for a renal transplant not necessarily from a living-related person.

In 1989 the first non-transplantable non- diabetic patients were also accepted

From 1992 elderly persons (below the age of 74 years) as well as diabetics were also included in the programme.

Over the years there has been an upward trend in dialysis and transplant usage in Malta, as seen in the adjoining table.

The success rate of kidney transplants is now approximately 90% (1 year graft survival). The most pressing problem is the availability of adequate numbers of transplantable organs. Various options have been discussed in attempts to increase the number of organs available. This paper discusses, in simple terms, the inevitable ethical concerns raised by organ donation.

The **general principles of medical ethics** stress the need to do as much good to the patient whilst doing the minimal amount of harm. Patients need to be given full information in a manner that allows them to make up their mind about a proposed line of treatment. Their decision should be made, as far as possible, free

from undue external pressures. Finally, treatment should be available, and be given in a fair and just manner.

Table: Dialysis and transplant in Malta:

	1992	1993	1994	1995	1996	1997	1998	1999
Acceptance		*29*	*28*	*35*	*46*	*47*	*49*	*41*
*Point Prevalence**	*31*	*43*	*45*	*61*	*78*	*98*	*114*	*104*
Transplants		*8*	*7* (3LRD)	*4*	*14*	*7*	*7* (1 LRD)	*10* (2 LRD)
*CAPD Prevalence**	*4/31*	*14/43*	*18/45*	*28/61*	*39/78*	*44/98*	*52/114*	*46/104*
% CAPD"	*13*	*33*	*40*	*46*	*50*	*45*	*46*	*44*
Acceptance PMP#		*82*	*80*	*100*	*115*	*118*	*123*	*103*
Dialysis for ARF		*9*	*12*	*17*	*14*	*19*	*18*	*9*

*As of the 31st December of the particular year

PMP = per million population: based on 0.40 million persons in Malta

(ARF: acute renal failure; LRD: living, related donor)

Reported incidence of dialysis in 1996 according to EDTA statistics (personal communication:

Western Europe: 111 per million persons (ca 80 % of centres provided data)

Southern Europe: 109 per million persons (ca 49% of centres provided data)

Specific ethical issues in cadaveric kidney transplantation include:

1 Definition of death

The legal and ethical acceptance of the brain death criterion has legitimised the salvage of organs whilst restricting the supply from irreversibly comatose persons (eg anencephalic infants, persistent vegetative state).

2 Consent for organ donation

This can fall in one of two main types: express consent or 'opting in' and presumed consent or 'opting out'. Debate continues on to

what extent is consent necessary and how can it be obtained in the case of a cadaveric donor.

3 Interventional ventilation

This refers to ventilatory support for patients with major intra-cranial haemorrhage on the verge of respiratory arrest, solely and exclusively in order to allow the patient to be declared brain dead and thus to become an organ donor. Duty-based ethics and utilitarianism are in conflict when trying to solve the ethical problems of consent and the possibility that ventilation may be followed by a persistent vegetative state. A practical issue is that the lack of intensive care facilities may determine the adoption of interventional ventilation in many hospitals.

Two situations can be envisaged:

1. Semi-elective situation, where cardiac arrest may be anticipated. Patients may be on ventilator. After certification of death the patient is immediately moved to the operating theatre for kidney removal.

2. Emergency situation: e.g. sudden, unexpected death in Casualty. In situ kidney cooling through insertion of a femoral artery double balloon catheter is done and then the patient is transferred to the operating theatre.

Explicit consent from relatives is required for both the cooling procedure as well as the kidney harvesting.

4 Non-heart beating donors

In centres using this programme, no major ethical objections have been raised. However, consent from relatives for both the cooling procedure on a dead body and also for kidney harvesting is very difficult to obtain in patients who die unexpectedly and suddenly, usually at Casualty.

5 The allocation of cadaveric organs

Ownership of organs rests with the State, which delegates its authority to the hospital and transplant team. Relatives are not in a position to dictate how the organs are to be used. Best possible use of kidneys is based on the principle of distributive justice, fairness, equality and impartiality. Not only must justice be done, it must be seen to be done. There is no perfect allocation system but whatever system is used, it must take note of clinical need. It should:

- ensure that there is significant clinical benefit in prolongation of life, reduction in suffering, improved quality of life,
- Fit in closely with the traditional patient-doctor relationship,
- Distinguish clinical need from clinical desire.

It is understood that this procedure may not be precise as it may rely on subjective criteria that cannot be standardised.

Two groups of patients cause particular difficulty: those with self-induced disease and those who are non-compliant with their treatment.

In **live donor transplantation**, ethical concerns centre almost exclusively around the donor. Despite problems and anxieties, it is widely accepted that donation of a kidney from a close relative is acceptable. A donor may be subjected to external pressures (family pressure to help the recipient, bribery, coercion), and internal pressures ('to do the right thing' or to 'not let down the recipient'). Consent problems also arise in children and in mentally incompetent individuals. The use of non-related live donors has become increasingly common and emotionally related donors (for example spouses) have been shown to give results at least as good as those obtained with well-matched cadaver kidneys. However, there is a slippery slope argument, namely that this

practice can lead eventually to outright commercialisation of live donor organ donation. The sale of organs has been rejected by the Western-dominated transplant community. On the other hand, it has been argued that a well run, well controlled system of payment for live donors may on balance do more good than harm.

Problems associated with informed consent.

One of the issues associated with informed consent is to ensure that this is freely given. The reasons for doubt in this area include:

- Information may not be available.
- Potential donors may make up their mind very early and then not "hear" any of the further information given.
- External pressures: family pressure to help the recipient, bribery, coercion and manipulation.
- Internal pressures: 'to do the right thing' or to 'not let down the recipient'.
- 'Way out' for donors: invention of medical contra-indications.
- Consent problems with children and mentally incompetent.

There are several reasons for encouraging donations from **emotionally-related live kidney donors (ERLKD)**. These include:

1. There is an increasing waiting list for cadaveric kidneys.
2. There is a success rate at 1 year in excess of 90 %.
3. There is strong motivation in the donor.
4. Often there is a direct personal advantage for the donor, especially if this is the spouse.
5. There is the possibility of bypassing dialysis completely.
6. There are fewer psychological problems than in transplantation between siblings.
7. There are fewer ethical objections from staff compared to cadaveric transplants.

On the other hand there are several objections to this procedure, namely:

1. It is contrary to the principle of primum non nocere: there is an early complication rate, peri-operative mortality as well as late complications (0.2 – 0.5 %).
2. There is a lack of insurance coverage in the case of a catastrophic scenario.
3. There may be doubts as to whether the donation was really "voluntary". If a partner says "no" to a transplant, this may be interpreted as lack of love and solidarity.
4. There may be the implication that the donation of this great gift might imply the obligation of eternal gratitude and fidelity.
5. There could be immunological objections to the transplant (e.g. poor HLA match).
6. The 'slippery slope' argument implies the possibility of commercialisation of organ transplantation.
7. There is also the fear that this might result in a further decrease in availability of cadaver kidneys for transplantation.

Should there be **payment for organ donation**?

It is generally accepted that there should not be any financial inducements to organ transplantation. The arguments in this respect include:

1. That such a practice is intuitively repugnant and immoral;
2. That it will exploit the poor and divide society; it could inhibit cadaver and living related donation,
3. Removal of an organ from a healthy person is not therapeutic for the donor.
4. A poor person may be induced to sell an organ to help his/her family.
5. The 'slippery slope' argument
6. Regulation: it would be very difficult to regulate paid donations.

On the other hand there are those who would support the concept of paid donations. Their arguments can be summarised as follows:

1. Every person has a right to self-determination – a paramount principle in secular Western society. This is related to the principle of autonomy.
2. From the utilitarian point of view, such practice would increase the number of available organs for transplantation, and thus increase societal good .
3. It may be easier to ensure the voluntary nature of the donation if the donor is not a relative to the recipient.
4. The act of selling kidneys is not necessarily degrading. It could be considered altruistic if the aim is to save the life of a family member.
5. Slippery-slope arguments are philosophically unsound as basis for public policy.

With regards to **xenotransplantation**, the discussion can be reduced to one fundamental issue: do animals have rights, and are they the same rights that we accord to humans? For those who believe that the answer to this question is 'no', that a human life is intrinsically worth more than that of an animal, then given due regard for the details (conditions in which pigs are kept, possible of transmission of animal infections to humans, and so forth), xenotransplantation will be seen as a development that offers life to patients who otherwise would die - and is therefore acceptable. Until such time as this has been shown to be the case, it is wise to move with the utmost of caution.