

Ethical issues in kidney transplantation – reflections from Nigeria

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Abstract: Organ transplantation has become a life-saving procedure for many disease conditions hitherto considered incurable. Kidney transplantation, now the treatment of choice for end-stage renal disease, is the commonest solid organ transplantation carried out in the world at the moment and it is the only solid organ transplantation done in Nigeria. This procedure, in addition to prolonging lives, also provides better quality of life and is evaluated as cost-effective, because it makes more resources available to other sectors of the economy. Organ transplantation in general and kidney transplantation in particular are fraught with ethical issues and dilemmas worldwide. Some of the ethical issues arising in the setting of developing countries like Nigeria may differ from those in countries where this procedure is established. Informed consent of the donor and the recipient is a major requirement for both organ donation and transplantation. Regarding donation, the ethical issues may differ depending on the type of organ donation, ie, whether it is living-related, living-unrelated, cadaveric, or from brain-dead individuals. Commodification of organs is identified as an ethical dilemma, and arguments for and against this practice are put forward here. Confidentiality of donor information, fairness and equity in donor selection, and access to kidney transplantation when needed are also discussed. Finally, the issue of safety of organ harvesting for the donor and of the transplantation process itself, and the possible long-term consequences for both parties are investigated.

Keywords: kidney transplantation, ethical issues, developing countries, Nigeria

Introduction

Organ transplantation has become a life-saving procedure for many disease conditions hitherto considered incurable. This procedure, in addition to prolonging lives, also enables better quality of life and is considered to be cost-effective because it makes more resources available for other sectors of the economy. Kidney transplantation, which has now become the treatment of choice for end-stage renal disease, is the commonest solid organ transplantation being carried out in the world at the moment and, in developing countries like Nigeria and Pakistan, it is the only solid organ transplantation that is practiced. In the US alone, over 93,000 renal transplants were carried out between 1988 and 1996.¹ Although there is a paucity of accurate data regarding this practice in developing countries, evidence from the literature indicates that there has been a considerable boom in organ transplantation, especially of kidneys.² In Nigeria, it could be said that this procedure is still in its infancy, with just over a hundred kidney transplants carried out to date in a limited number of centers, and the number of kidney transplants done abroad (“imported kidneys”) cannot be ascertained. Organ transplantation in general, and kidney transplants in particular,

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are fraught with ethical issues and dilemmas worldwide, about which there is ongoing debate, especially because of the shortage of organs in developed countries with established transplant programs. In the Nigerian context, some of these ethical issues might not be relevant at the moment because of the “embryonic” stage of its transplantation program. Although a few studies have investigated attitudes to, knowledge about, and the practice of organ donation and transplantation in Nigeria, little has been mentioned about the ethical issues associated with the procedure.^{3,4} The purpose of this paper is to highlight these ethical issues and dilemmas, especially as they relate to the practice of kidney transplantation in a developing country where the procedure is still in its infancy. It is expected that this paper will highlight some differences in current ethical issues from those ongoing in developed countries with extensive experience in the practice of kidney transplantation.

Ethical issues

Because the process of organ transplantation involves removing an organ from one person (donor) and transferring it to another (recipient), the need to obtain informed consent from both persons (or their surrogate decision-makers) is compulsory. This is in keeping with the ethical principle of respect for persons and is expressed in many ethical guidelines today. To start the discussion about consent, it is important to mention the many sources of organs for transplantation, ie, living donor (related and nonrelated), cadaveric donor, and brain-dead patients. In countries where transplantation is well established, organs are sourced from both living and cadaveric donors using different strategies, ie, an opt-in (explicit consent), opt-out (presumed consent), donation after brain death, donation after controlled cardiac death, and extended criteria for deceased donors.⁵ The presumed consent strategy is now being applied in many developed countries as a way of increasing the availability of organs, but the results have thus far fallen short of expectations.⁶ The ethical issue associated with presumed consent is that by making people opt out of organ donation, do we respect their rights as individuals to self-determine? Are these people who are unwilling to donate organs going to be put under societal pressure or made to feel guilty about their decision to opt out? Proponents of the opt-out strategy, however, would argue that the end justifies the means, in that many more lives will be saved using this strategy, and this outweighs any violation of the rights of donors. This strategy of opting out has not been adopted in developing countries, probably due to the absence or gross

underdevelopment of organ transplantation programs for socioeconomic and cultural reasons in these countries.⁷ The living donor strategy remains the main source of organs in developing countries, and informed consent is nonnegotiable. The ethical dilemma differs when considering related and nonrelated living organ donation. With the former, the dilemma is whether the decision to donate an organ is totally free of coercion from family members. This is especially important in the extended family setting prevalent in many African countries where the pressure (direct or subtle) could be enormous. Let us consider the case of Mr X who has end-stage kidney disease and needs a kidney transplant. He has been told by his nephrologists that his best bet will be to obtain a kidney from one of his family members. and he mentions this to his son every time he visits and begs him to save his life. Although this is a hypothetical scenario, it is played out in reality many times. In this scenario, how voluntary can a decision by the son to donate a kidney to his father be? Can we say that the decision is absolutely free of coercion, either subtle or explicit? Is there not a risk of the donor overlooking the risks to himself/herself because of the feeling of responsibility towards a loved one, and can we confidently say that the main motive for donation is altruistic? In the African setting, where the family is central to decision-making, the risk of coercion is even greater, and here the autonomy of the donor is totally eroded. For living nonrelated donors, the main motive for organ donation in many developing countries has been found to be financial.

The nonheart-beating donor strategy is based on the “dead donor” rule which states that “vital organs should be procured from persons only after they are determined as dead”.⁸ Although this strategy is not being practiced in Nigeria or in most developing countries at the moment, it is expected to become an important source of organs when the practice of organ transplantation becomes established in these countries. This rule confirms the commitment of society to respect human life and the fact that persons are not used as a means to an end, but as an end in itself. At the moment, brain death⁹ and cardiopulmonary¹⁰ criteria are used to define death, although the moment or process of death is difficult to pinpoint. Another point that comes to mind is the assumption that these death criteria have been put in place to facilitate availability of organs for transplant, and that because of this, physicians would do little to resuscitate patients in cardiac arrest.¹¹ This argument has brought to the fore the need for widely accepted criteria for death and a protocol for organ recovery. The issues relating to the integrity and wholeness of the human body are also ethical

problems that need to be mentioned.¹² Some cultures still abhor any form of mutilation of the living or dead body for any purpose at all, even though most religions now approve of cadaver organ donation on the basis of brotherly love, doing good, and sustaining life.^{13,14}

Commodification of organs

The sale and trafficking of organs, especially in developing countries, has emerged as the major problem confronting the practice of organ transplantation worldwide.¹⁵ Although there is a worldwide consensus that no payment should be made for organs from either living donors or deceased individuals, the shortage and scarcity of organs for transplantation and the associated long waiting period has led to what is termed “transplantation commercialism” in developing countries where regulation of transplantation practices is inadequate.¹⁶ The ethical issues here are linked to the question of “body ownership”, and there seems to be no consensus on this issue.¹⁷ Some would argue that, based on the principle of autonomy and respect for persons, people may donate their organs for altruistic reasons as well as for financial gain. This, according to them, will greatly increase the availability of organs for transplantation. However, while this argument might be plausible, it is known that payment for organs can influence the decision to donate, and more people from the low socioeconomic classes would be enticed into doing this, leading to inequities in donation both within a country and internationally. There is also a danger of vital medical information being withheld by potential donors, which may lead to the transplanted organ carrying some unknown disease that could compromise the outcome of transplantation or the overall health of the recipient. Some workers have advocated a form of “compensated donation”, whereby donors will have some sort of reimbursement for lost time and assistance with health insurance,⁵ but this does not eliminate completely the risk of abuse. Indeed, the Iranian model of paid and regulated living-unrelated kidney donation⁷ is an example of the workability of this approach, although as mentioned earlier, it does not remove all the ethical dilemmas. The Declaration of Istanbul on Transplant Tourism and Organ Trafficking also supports such schemes that remove economic disincentives as a way of encouraging altruistic living organ donation.

Confidentiality

Confidentiality of information given to physicians by patients has always been a basic component of the ethics of the medical profession, and organ transplantation is no

exception. In this case, the most important information is the result of screening and compatibility tests which could affect the outcome of the procedure. However, circumstances whereby the health of third parties could be affected by these results are rare exceptions to the confidentiality rule, and even in these situations, the donors involved should be informed before the information is disclosed to the affected parties.

Fairness and equity

Fairness and equity in organ procurement needs to be viewed in terms of commodification of organs and of equitable access of the populace to organ transplantation, when indicated. In procuring organs for transplantation, efforts should be made to ensure a fair selection of donors, using explicit criteria, and without any form of discrimination. To address the question of equitable access to organ transplantation in this age of shortage of organs, several rationing strategies have been put in place in transplantation programs in many developed countries, and these strategies are also laden with ethical dilemmas.¹⁸ For example, if a donor kidney is available for transplantation, and two recipients, a 45-year-old teacher and a 70-year-old man, have good histocompatibility matching with the kidney, who gets the kidney? It is likely that most people would choose the younger patient, based on reasons of future productivity and better utility for the community, and most protocols for transplantation actually exclude patients older than 65 years, but recent studies have shown good results in transplanted patients over this age.¹⁹ So do we have any right to value the life of one person more than another based on years already lived? Let us take a look at another scenario of a patient with end-stage renal disease secondary to human immunodeficiency virus (HIV)-associated nephropathy and another with diabetic nephropathy being considered for the same donated kidney. By what criteria do we choose to whom to give the kidney? Can we be accurate in estimating the longevity of the transplanted kidney in both potential recipients? Now that HIV/acquired immune deficiency syndrome (AIDS) has become a potentially chronic treatable (albeit not curable) disease like diabetes, how do we proceed in this case? There are no ready answers to these questions, but raising them enables us to understand the complexity of the issues being discussed. With the increasing prevalence of HIV/AIDS and hepatitis B infection in many Sub-Saharan countries, the main ethical issue that will arise in the near future will be that of discrimination regarding access to organs.

Perhaps the most important problem limiting access to kidney transplantation in Nigeria is the cost of the procedure. The average cost of the procedure in Nigeria is in the range of 6–10 million Naira (US\$ 40,000–70,000), without considering the financial implications of postoperative immunosuppressants, and this in a country where more than 70% of the population live on below two US dollars daily.²⁰ The situation is made even more difficult by the lack of centralized health insurance, hence payment for health care is mainly “out of pocket” in these countries.^{21,22} This is a contrast with developed countries where there is usually some form of health insurance to relieve the financial burden on patients. One dilemma that is peculiar to developing countries like Nigeria is the problem of continued access to maintenance immunosuppressant drugs post-transplantation. Our experience is that many patients find it very difficult to find the resources to sustain these medications because of their high cost, hence risking late rejection of the graft. We believe that a mechanism needs to be put in place by the World Health Organization and other international agencies to help resolve this problem, as was done in the case of antiretroviral drugs.

Quality assurance and safety

Two of the core principles of biomedical ethics are beneficence and nonmaleficence, and both are relevant when discussing organ transplantation. While beneficence (to do good) is the main principle behind organ donation and transplantation, nonmaleficence (to do no harm) is also relevant. While the aim of transplanting a “normal” kidney is to improve the health status and prolong the life of the recipient, it is important to ensure that the process of organ recovery is as safe as possible, and that both the living donor and recipient are followed up to detect and manage any short- or long-term sequelae.²³ The competence of the medical/surgical team responsible for the transplant process should also be of the highest order, so as to ensure outcomes comparable with those in developed countries. It is very necessary to ensure that the economic aspects of the procedure do not in any way compromise accepted worldwide standards. The informed consent process should ensure that all necessary information regarding the potential risks of the procedure, the possibility of graft rejection, and adverse effects of the immunosuppressant used by the recipient are made available to the potential donor and recipient.

Conclusion

Ethical issues in kidney transplantation, especially in the context of a developing country with relatively little

experience, may differ in certain areas. Many of the ethical dilemmas are related to informed consent by the living donor, commodification of the kidney, quality assurance, and safety of the procedure. There is also a need to ensure fairness and equity in access to the procedure, as well as to post-transplant immunosuppressive agents.

Disclosure

The authors report no conflicts of interest in this work.

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