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Opinion

Professor Christian Barnard

Abstract
Organ transplantation has evoked such mixed and even violent reaction that it would seem worthwhile to explore the ethics governing it – and to do this by examining the three major areas of contention: the act itself, the recipient and the donor.

IS TRANSPLANTATION ETHICAL?
News coverage of transplantation in the popular mass media has been widespread, enthusiastic and, unfortunately, too often sensational and misleading. I t has been misconceived in certain sections of the public both as a panacea and as an unethical and unjustified form of treatment. Neither assertion is accurate.

Within our currently limited understanding of immunological attack on an allograft and our inability to prevent such an onslaught, the transplantation of any organ must be accepted as palliative therapy – not a final cure. It achieves palliation which equals, if it does not surpass, some forms of palliation which have been accepted for many years as the only way to deal with malignant diseases. This being established, one cannot accept as unjustifiable or unethical the palliation of symptoms and extension of life itself.

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A frequent criticism is that the manpower and the financial expenditure involved in transplant programmes far outweigh the results obtained, and that other medical services have a more urgent and real claim to the financial and intellectual effort needed for transplants. This sort of criticism is extremely conservative and dangerously short-sighted. Similar attacks were once levelled by similar critics at open-heart surgery using cardiopulmonary bypass. This happened in the early days of this new technique, but as the surgeons and scientists learned more about heart-lung machines and the management of patients seriously ill from heart disease, methods and apparatuses were simplified and the techniques became more widely applicable.

To curb transplantation at this stage would be to strangle one of the most promising and exciting fronts of medical endeavour of this century. From the experience gained in the problems of rejection, methods of immunological control will be improved and vital organ replacements will become a routine and life-saving procedure. To deny medicine its full thrust in this direction would be irresponsibly short-sighted. Indeed, it is difficult not to conclude that any withdrawal from this new frontier would be professionally unethical. We have only to continue transplantation on a most active scale.

DOES THE RECIPIENT RECEIVE AN ETHICAL TREATMENT?

It is currently accepted that a patient should not be submitted for organ transplantation

unless he suffers from an irreversible disease of the organ to be transplanted; that conventional therapy is of no further avail; and that the patient has progressed to the terminal stages of the disease — in blunter terms, he should be dying. Allograft replacement of such an affected organ may offer the patient a significant extension of life. Renal recipients may look forward to several years of extended life.

It is still premature to evaluate heart and liver transplants, but we should note that there are recipients of heart and liver grafts who are in their second post-transplant year — and not without dramatic relief. Not only is there extension of life, but also a significant palliation of life-crippling symptoms. The cardiac recipient exchanges the horror of terminal cardiac failure for a life similar to that of a vigilantly controlled diabetic; the distress of uraemia and frequent haemodialysis is exchanged for daily drug control and a full life.

IS OUR ACQUISITION OF DONOR ORGANS ETHICALLY ACCEPTABLE?

For many years both medical and lay public have accepted that after the certification of death by three well-known criteria — brain death, no sponanteous respiration, and absence of cardiac activity — a post mortem is performed and the heart, instead of being placed in a bottle, is transplanted in another body in an attempt to save a life or alleviate suffering. There is no ethical principle which establishes this act as unacceptable, or immoral. Inevitably, one can only conclude that it is unethical to allow such organs to putrefy with the cadaver, thus denying a potential recipient an extension of life.

There are people who accept this argument and yet voice real mistrust of the management of the donor before the certification of death. These misgivings are entirely unfounded. Years before surgeons embarked upon the transplantation of cadaver organs, neurologists and neurosurgeons concluded it was futile to keep patients alive — once there is undeniable and irreversible brain death. In short, it has been universally acceptable that at this stage artificial maintenance of life may be terminated. Moreover, throughout the world responsible medical and legislative groups have defined the moment of death and the handling of a potential donor. Further, with heart transplants even greater care is taken to handle this problem most ethically.

Certain fundamental principles of donor organ acquisition should be emphasised. All patients in need of resuscitation and special care must receive this with the utmost skill and efficiency available today, and potential donors should be admitted under the care of doctors who are not involved in transplantation.

This separate group of doctors must decide when treatment is of no further use or avail, and should therefore be discontinued or not instituted. They may then discontinue or withold treatment when they decide that gross loss of cerebral function has occurred and is permanently irrecoverable. Before coming to this decision there must be a positive clinical diagnosis which will permit prognosis. Also, there should be instituted all appropriate clinical investigations which might indicate a remediable or reversible condition.

Cerebral death should be diagnosed on neurological, electroencephalographic, circulatory and respiratory criteria, using the best available apparatus and skill. If these criteria are fulfilled, the patient is declared dead and only then is it possible to take measures to obtain viability of desired organs. At that stage, a donor may be transferred to the transplant intermediary or referee. There seems little doubt that this is the morally and ethically acceptable sequence of events for this crucial point in the transplantation of an organ.

Because it is desirable that the results of animal and laboratory experiments be applied to human beings to further scientific knowledge and to help the suffering of humanity, the World Medical Association has prepared recommendations as a guide to each doctor engaged in clinical research. One of these recommendations is that in the treatment of the sick person, the doctor must be free to use a new therapeutic measure if, in his judgement, it offers hope of saving life, re-establishing health or alleviating suffering. There is no doubt in my mind that we had reached this point in organ transplantation.