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Moral and Ethical Reflections on Human Organ Transplantation

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Implicit in the definition of medicine as "applied biology" is the concept that it is applied *for the benefit of man*—and not just for generic "man" but also, and perhaps especially, for the specific individual man who happens to be sick. Similarly implicit in this context, however, is the notion that "biology" is not a static mass of knowledge applied by rote but rather a constantly evolving, expanding, and changing fund of information that requires discrimination in its use. Experimentation, therefore, is an integral part of medicine. And here, of course, one can see the dim outline of a moral problem that the conscientious physician, Christian or not, may be obliged to face.

HUMAN EXPERIMENTATION IN GENERAL AND IN RELATION TO HUMAN TRANSPLANTATION

It is a generally accepted principle that any innovation, medical or surgical, must have an adequate experimental basis before being applied to man. However, it is seldom possible to state precisely how much experimental background can be considered "adequate." It should, of course, be sufficiently extensive to suggest that translation from the laboratory to the clinic or operating room will be entirely feasible. But good results in animal experimentation, desirable though they are, do not guarantee similar results clinically, nor do poor results necessarily exclude clinical success. Man remains, inevitably, the ultimate experimental model. This has proven to be the case with attempts to modify by irradiation the recipients of renal homografts. In dogs, for example, there has been only one successful kidney homograft using this technic, but it has enjoyed greater success in humans (between non-identical twins on two occasions and with maternal and inter-sibling transplants on at least three others)[1].

It was the decision to undertake kidney transplantation in man, made over 10 years ago, that posed for us the first significant moral problem related to human experimentation. Although the procedure had been attempted in the past, there had been no clinically successful precedent. The surgical technic of transplantation was well-established, however, and there was ample clinical and experimental evidence to indicate that, immunologically at least, renal isografts (between identical twins) would have as great a chance of success as renal autografts (re-implanting a kidney in the same individual). Consequently, the first kidney transplantation to be undertaken involved identical twins. The prospective donor and the recipient twin were fully informed about the investigational nature of the procedure and about the uncertainty of success. The recipient gave his full and informed consent. Furthermore, since he was dying of uremia because of destroyed kidneys, there was no question that the reason for proposing transplantation was a "proportionately grave" one. Fortunately the operation, carefully planned and executed as a team effort, was an unqualified success for the recipient, who survived to lead an active and productive life for eight years[2,3]. In the case of the *recipient* twin, therefore, a favorable clinical result was achieved within the rigorous ethical framework prescribed for *any* human experimentation. In the case of the *donor* twin, however, unique medico-moral problems arose.

THE DONOR TWIN

There is little doubt that the individual who has been surgically deprived of one of his two kidneys is at a potential physiologic disadvantage in facing the rigors of life. Does the possible benefit to the recipient outweigh this hazard to the donor? Since a successful kidney transplant in appropriate cases is life-saving, it would seem that it does. And it has been on this premise that the donor's gift has been solicited and invariably granted. But if these difficulties seem great, consider—as we had to consider—the situation of identical twins, one with fatal kidney disease, who were *legal minors*. Could one twin, as a minor, make free legal disposition of a kidney for transplantation? Do the parents, as legal guardians, have authority to make such disposition? What of the psychic trauma to the healthy twin if he is legally prevented from saving his brother's life by donating a kidney? These legal hurdles—and others—have been temporarily surmounted with the help of kindly-disposed jurists, but the final opinions remain to be written.

THE UNRELATED DONOR

As we state in a yet unpublished article[4]:

> Justification even for the use of a cadaveric kidney or a "free" kidney is not automatic just because the prospective recipient is otherwise doomed to die. . . . All the more difficult to justify is the use of living volunteer donors. Although chemical suppressive agents may be effective temporarily, many questions remain unanswered. . . . "The potential dehumanizing abuses of a market in human flesh" is a phrase used by Lederberg (in *Man and His Future*). Although admitting that his attitude may be construed as an "alarming or ungracious reaction to the gift of life," he warns against misguided medical progress in the name of humanity. Physicians removing intact organs from healthy donors without a conscientious concern for the problem of better procurement may be likened to the old lumber barons felling trees indiscriminately. . . . To our knowledge no healthy living donor has yet been an operative fatality, yet fatal operative complications are always possible. As physicians motivated and educated to make sick people well we make a basic

[1] Murray, J. E., Merrill, J. P., Dammin, G. J., Dealy, J. B., Jr., Alexandre, G. W., and Harrison, J. H.: Kidney transplantation in modified recipients. *Ann. Surg.* 156:337-355 Sept. 1962.

[2] Murray, J. E., Merrill, J. P., and Harrison, J. H.: Renal homotransplantation in identical twins. *Surgical Forum* 6:432 1955.

[3] Merrill, J. P., Murray, J. E., Harrison, J. H., and Guild, W. R.: Successful homotransplantation of human kidney between identical twins. *J.A.M.A.* 160: 277-282. Jan. 28, 1956.

[4] Murray, J. E., Merrill, J. P., Dammin, G. J., Harrison, J. H., Hager, E. B., and Wilson, R. E.: Current evaluation of human kidney transplantation. (Proceedings of Sixth Homotransplantation Conference) *Ann. New York Acad. Sci.* (in press 1964).

*Part of a symposium on "Human Transplantation: Medical and Moral Aspects," sponsored by the Guild of St. Luke of Boston and held at Boston College on January 29, 1964; Rev. John J. Lynch, S.J., Professor of Moral Theology, Weston College, also participated.

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qualitative shift in our aims when we risk the health of a well person, no matter how pure our motives. To relieve ourselves of this responsibility we must strive for better organ procurement so that the day will come when even the identical twins will not require a living donor.

MORAL THEOLOGY AND KIDNEY TRANSPLANTATION

As emphasized by Father Lynch[5] the only really unique difficulty in the matter of kidney transplantation *inter vivos* concerns the donor. As humans we merely exercise stewardship, not mastery, over our bodies, and hence do not have *absolute* freedom concerning their disposition. In one of the earliest articles dealing specifically with *inter vivos* renal transplants, Father Connell[6] has indicated that such donations are licit if the operation does not gravely endanger the life of the donor or impair his functional integrity. While there remains some controversy among moral theologians regarding the liceity of *inter vivos* organ transplantation in the human, most discussion centers not on whether such procedures are permissible but on how best to justify them in a theological sense. Father Snoek[7] has provided a well-ordered presentation of the arguments that have been advanced by the proponents of the favorable opinion. In several issues of *Theological Studies* Father Lynch[8] has brought the matter up to date.

THE PRESS, THE PATIENT, AND PUBLIC RELATIONS

The dramatic aspects of human transplantation create additional problems, as we suggest in a pending article[4]:

> "Spare parts surgery" is a popular topic in the public press. We cannot escape the public relations aspects no matter how we try. It is our obligation to cooperate with a responsible press to produce an informed public, yet we must protect the patient's right to privacy. Most patients requiring kidney transplants are known in their local community and information first leaks out from this source. The medical center caring for such a patient must guard against premature, over-optimistic reporting which sets up irrepressible chain reactions which lead to false hopes and needless expense for patients and ultimately to a diminution of respect for the medical profession.

CONCLUSION

Human transplantation presents great challenges and great rewards. In addition to the obvious medical problems there are important medico-moral, philosophic, and social implications. A program based upon unyielding concern for the individual patient—be he donor or recipient—offers the best opportunity for the eventual resolution of these difficulties.

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[5]Lynch, J. J. (S.J.): at the Boston College symposium, Jan. 29, 1964.

[6]Connell, F. J. (C.SS.R.): The morality of a kidney transplantation. *Am. Eccl. Rev.* 138:205.207 March 1958.

[7]Snoek, J. (C.S.S.R.): Transplantacao organica entre vivos humanos. *Rev. eccles. Brasil.* 19:785-795 Dec. 1959.

[8]Lynch, J. J. (S.J.): Notes on moral theology. *Theol. Studies* 19:178-181 June 1958; 20:247-250 June 1959; 21:240 June 1961.