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Medical and Legal Aspects of Human Organ Transplantation

Carl E. Wasmuth and Bruce H. Stewart***

FOR CENTURIES man has been intrigued by the concept of transplanting body parts from a healthy individual into another person whose parts have been destroyed by disease or injury. Early legends of the middle ages describe the miraculous transfer of extremities and facial structures of slaves or benevolent donors to persons suffering from loss of such parts. Although the credibility of such tales runs counter to modern scientific knowledge, the idea has fascinated medical scientists ever since.

Medical Aspects of Transplants

With the development of more precise surgical techniques in the 19th and early 20th centuries, further attempts were made to transplant skin, teeth, bone, corneas, and other structures from one individual to another.¹⁻⁶ It was gradually learned that the body regards such transplanted tissues as foreign, and usually tries to reject them soon after transplantation.⁷ The greater the genetic difference between donor and recipient, the more rapid and vigorous the rejection reaction becomes.⁸ Thus it was found

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¹ Baronio, *Degli Innesti Animali* (Milan, 1804). First skin autograft reported.

² Schone, *Vergleichende Untersuchungen ueber die Transplantation von Geschwelsten und von normalen Geweben*. *Burns*, 61 *Beitr. Klin. Chir.* 1 (1908). During 19th Century skin grafts taken without distinction between autograft and homograft.

³ Hunter, *Natural History of Human Teeth* (London, 1771).

⁴ Mercer, *Orthopedic Surgery* 49-50 (6th Ed. 1964).

⁵ Sellerbeck, *Concerning Keratoplasty*. 24 *Arch. f. Ophth. Abt. IV* 1-46 (1878).

⁶ Zirm, *On Corneal Transplantation*. 20 *Wien. Klin. Wochnschr.* 61-65 (----).

⁷ Lexer, *Ueber Freie Transplantationen*. 95 *Arch. Klin. Chir.* 827 (1911). First stated that homotransplantation was not successful whereas autotransplantation was.

⁸ Medawar, *The Immunology of Transplantation*. Series 52 *The Harvery Lectures* 144 (1956-1957).

that animal to human transplants (heterotransplantation) were virtually never successful. Procedures involving unrelated human donors (homotransplantation) were occasionally successful. Procedures in which the graft was taken from a twin (isotransplantation) or from the patient himself (autotransplantation) were almost universally successful unless technical problems developed.

As this problem of rejection became recognized, transplantation in humans fell into virtual disuse during most of the first half of the 19th century. Skin and bone, when needed, were usually obtained from other areas of the patient himself. Only in the area of corneal transplantation, where the rejection reaction is virtually non-existent, were further techniques of homotransplantation actively developed.⁹ From a practical standpoint the eyes could be rather easily obtained as part of a sterile autopsy, trained ophthalmologists assisting the pathologist after special permission had been obtained from the next of kin. Since several hours may elapse between death and removal and storage of the eyes without reducing the chances of successful transplantation, there have been very few legal problems in this field.

In 1954 a new chapter in the field of organ transplantation was written, when at the Peter Bent Brigham Hospital in Boston a healthy kidney from one twin was successfully transplanted into the other twin who was dying of kidney failure.¹⁰ This was made possible in part by the early work of Carrel,¹¹ who described a kidney transplantation technique in animals but found early rejection an insurmountable problem in non-twin experiments, and by the development of an artificial kidney by Kolff and others which enabled patients dying of kidney failure to be temporarily rehabilitated and properly prepared for operation.¹²⁻¹⁴ Identical twin transplantation has subsequently been

⁹ Paton, *Corneal Transplantation: A Historical Review*. 33 *Am. J. Ophthal.* 3-5 (1950).

¹⁰ Merrill, Murray, Harrison, and Guild, *Successful Homotransplantation of the Human Kidney Between Identical Twins*, 160 *J.A.M.A.* 277 (1956).

¹¹ Carrel, *The Ultimate Result of a Double Nephrectomy and the Replantation of one Kidney*. 14 *J. Exp. Med.* 124 (1911).

¹² Kolff and Berk, *Artificial Kidney, Dialyzer with Great Area*, 21 *Geneesk. Gids.* (1944).

¹³ Scribner, Caner, Buri, and Quinton, 6 *Trans. Amer. Soc. Artif. Intern. Organs* 88 (1960).

¹⁴ Kolff, Nakamot, and Scudder, *Experiences With Longterm Intermittent Dialyses*, 8 *Trans. Amer. Soc. Artif. Intern. Organs.* 292-295 (1962).

repeated in at least 36 instances, and most of these have been successful since rejection is not a problem in this situation.

Because very few patients with kidney failure possess an identical twin capable of donating a kidney, however, other methods have been sought by which the rejection reaction can be reduced or modified, enabling kidneys from non-twin donors to survive.¹⁵ The development of specific anti-rejection drugs during the past few years has made this at least in part possible. Initially, most kidneys were donated by blood relatives, since genetically the closer the donor is to the recipient, the better the chances are for the survival of the homograft. By early 1964 some 232 kidney transplantation procedures had been done throughout the world utilizing healthy blood relative donors, with 123 of the recipients surviving with functioning kidneys. Kidneys were also obtained from living unrelated volunteer donors in other instances where a suitable related donor was not available.¹⁶

It also became evident, moreover, that there were many more patients dying of kidney failure than there were available living human donors. Efforts were then directed toward obtaining kidneys from patients dying suddenly of other disease—so called cadaver donors. This had been attempted 142 times with 36 survivors as of early 1964.¹⁶ Although recent work has indicated increasing success in this type of homotransplantation,¹⁷ which has the obvious advantage of sparing a living person the hazards and discomforts of kidney donation, the logistics of obtaining and using such kidneys can be formidable. Unlike skin, bone, blood vessels and corneas, which can be obtained at autopsy and successfully used many hours after death, the kidneys deteriorate very rapidly and must be obtained soon after cessation of circulation in the donor in order to survive and function. Because the logistics of obtaining cadaver kidneys are rather complex, and because multiple legal problems may arise during the course of such procedures, the actual method of transplantation will be here discussed in some detail.

¹⁵ Converse and Rogers, Symposia of the 3rd, 4th, 5th and 6th International Tissue Homotransplantation Research Conferences. 73 N. Y. Acad. Sc. 538 (1958); 87 *id.* 1 (1960); 99 *id.* 335 (1962).

¹⁶ Murray, et al., Second Report of Registry in Human Kidney Transplantation, 2 Transplantation 660-664 (1964).

¹⁷ Stewart et al., Renal Homotransplantation with Cadaver Donors, 19 Urology Digest 32 (1965).

Patients who are dying of kidney failure and who are potential recipients of cadaver kidneys are maintained in relatively good health by intermittent treatment with the artificial kidney. Each treatment lasts for 10 or 12 hours, and most patients require at least two treatments per week. They can usually leave the hospital after the first few treatments and live nearby until a donor kidney becomes available. When the availability of a donor kidney is imminent, the patients are alerted and rushed to the hospital where preparations for emergency operation are being made.

The source of kidneys for cadaver transplantation is usually from patients in the hospital who die suddenly from unrelated causes. Sudden severe brain damage as seen with massive hemorrhage or head injury, or irreversible cardiac arrest which can result from a severe heart attack or from complicated heart surgery are the commonest situations in which cadaver donor kidneys can be salvaged. Such patients can usually be supported by cardiac massage and/or artificial respiration until it is obvious the situation is hopeless and death inevitable. At this point the attending physician appraises the family of the situation and asks permission to obtain the kidneys for transplantation at time of death. If permission is granted by signing a special form, emergency preparation is then made for transplantation. Transplant teams are alerted, and as soon as the attending physician pronounces death the patient is rushed to the operating room where under sterile conditions the kidneys are removed by a surgical team. As soon as they are removed, the kidneys are perfused with a special nutrient solution and stored in oxygen until the recipient can be readied by a second operating team. If both kidneys are suitable, two recipients can be prepared simultaneously by separate operating teams and dual transplantation carried out. While transplantation is going on, the first surgical team closes the incision in the donor in the same manner as for an ordinary abdominal operation and the donor is then transferred to the Department of Pathology where autopsy or preparation for burial is carried out in the usual fashion. It has been found that if the kidneys can be removed and perfused in less than one hour after cessation of circulation in the donor, the chances for survival are good. As further time elapses the chances diminish, so that beyond two hours it is very unlikely that transplantation will be successful.

As work in this field progresses, it is becoming more and more obvious that the supply of cadaver donor kidneys as currently obtained cannot keep pace with the number of patients who are dying of kidney disease and who might benefit from a kidney transplant. Attempts are being made to obtain such kidneys from homicide victims or sudden accidental deaths, but legal difficulties in this area have made progress slow to date.

Similar principles apply in the field of heart, lung and liver transplantation which is still in the developmental stage and has not been successfully applied to humans as yet.¹⁸⁻²⁰ In future transplantation of these organs it is obvious that cadavers will be the only donor source unless suitable animal donors can be found, which seems highly unlikely at this time. With all cadaver transplantation procedures it is vitally important to maintain circulation in the donor up to a time as close as possible to actual removal of the organ. This means that the obtaining of healthy organs from recently deceased patients for use in transplantation constitutes a surgical emergency, where minutes count in terms of survival of the organ and recovery of the recipient. The specific rights of the various donors, live or cadaver, as well as those of the potential recipients have not yet been fully clarified from a legal standpoint. We are faced with the problem then, that the law is not keeping pace with scientific advancement in this field, and medical progress may therefore be held back until satisfactory legal clarification develops.

Legal Problem

Problems due to lack of proper legal machinery have not caused serious difficulty where live human donors are involved. Careful explanation of the risks of such procedures by the medical staff, with properly witnessed signature of a special living donor consent form (*See Figure 1*), has proven satisfactory to date. In the case where the donor may be a minor, as happened in the early identical twin transplants in Boston, the court has been petitioned for declaratory judgment regarding desirability and legality of the procedure.

¹⁸ Hardy, et al., Heart Transplantation in Man. 188 J. A. M. A. 1132-1140 (1964).

¹⁹ Titus, Shorter, & Payne, Transplantation of the Lung. 48 Med. Clin. N. Am. 1089-1095 (1964).

²⁰ Starzyl, et al., Immunosuppression After Experimental and Clinical Homotransplantation of the Liver. 160 Ann. Surg. 411 (1964).

On the other hand, when an organ from a cadaver donor is to be transplanted to a living recipient, several complex legal problems confront the surgeon.²¹ Particularly in the group of transplantation operations that have been termed "emergency," time is of the essence. Of interest particularly are those organs that, if removed for donation, doom the donor to certain death. Living donors would seem to be a rather limited source of such tissue to be used for therapeutic purposes. For the most part, the surgeon must look elsewhere than to living donors for organs to transplant into the recipient. Accordingly, therefore, if any great amount of tissue is to become available for homografts, it must come from the bodies of deceased individuals.²² The organs such as kidneys and liver must be removed from the cadaver-donor as soon after death as possible—not within days or even hours but within minutes. At death, the discontinuation of circulation of blood to some organs whose oxygen demands are extremely high causes irreversible damage. The question now arises: What legal instruments must be secured? In preparation for the immediate use of valuable tissue, who may give consent to remove organs from a person whose death is known to be imminent?

Consideration of the use of cadaver organs brings forth a host of legal complexities dealing with the various rights of the deceased as well as of the survivors. Probably the simplest and the most expeditious manner of providing an organ or organs of a person's body to be used in transplantation procedures to others would be statutory authority for a living authorized person to grant permission to remove such organs immediately after death. Then the only question remaining is the definition of death—what constitutes death, and when does it occur?

A living person has, as a general rule, only limited powers to dispose of his body or the parts of his body after his death unless it is specifically provided for by statutes. It might be possible for a person to donate a part of his body while living—for instance when an individual elects to donate a pint of blood or one of his kidneys. (*See Consent Form—Figure 2.*) It is doubtful that the same person would willingly donate a vital organ with-

²¹ Louisville and Nashville R. R. v. Wilson, 123 Ga. 62, 51 S. E. 24 (1905).

²² 159 J. A. M. A. 487 (1955); 271 New England J. Med. 691 (1964).

out which life in him would be precluded.²³ The question of vital organ transplantation seldom arises until the prospective donor himself is acutely ill. It would be a most shocking experience to a desperately ill patient to be consulted relative to the donation of any of his vital organs at a time when he is desperately trying to remain alive. Moreover, there may be a serious doubt as to the physiologic capacity of this individual to grant such permission. Therefore, permission for organ donation must be obtained not from the patient but from the relatives at or near the actual time of death.

Certain of our States permit an individual to dispose of his body after death by will.²⁴ In California, the decedent before his death may direct the disposition of his remains. This provision of the will is valid regardless of the validity of the will in other respects.

A decedent prior to his death, may direct the preparations for, type or place of interment of his remains, either by oral or written instructions. If such instructions are in a will or other written instrument, he may direct that the whole or any part of his remains be given to a teaching institution, university, college, legally licensed hospital, or to the state director of public health and the person or persons otherwise entitled to control the disposition of such remains under the provisions of this section shall faithfully carry out the directions of the decedent subject only to the provisions of this chapter with respect to the duties of the coroner.

If such instructions are contained in a will, they shall be immediately carried out, regardless of the validity of the will in other respects or of the fact that the will may not be offered for or admitted to be probated until a later date.

This section shall be administered and construed to the end that such expressed instructions of any person shall be faithfully and promptly performed.²⁵

Likewise in another State, the legislature has provided that after the death of a person, his body may be disposed of as provided in a will or by an instrument executed in the same manner as a deed. The only qualification is that the body must be used for scientific purposes. In fact, it specifically states ". . . for other advancement of medical science, or for the replacement or rehabilitation of diseased or worn out parts or organs of other hu-

²³ 159 J. A. M. A. 487 (1955).

²⁴ California Health and Safety Code, sec. 7100.

²⁵ *Ibid.*

mans.”²⁶ Thus, there is authority in some States that recognize the right of a person to provide by will for the disposition of his own body after death. However, there is serious question whether the testamentary provision, of its own force, will overcome an objection of the testator’s spouse or close relative.²⁷

The right of a person to provide by will for the disposition of his own body after death seems to have been generally recognized. However, a person may not by will order the disposition of his body to be in accordance with the wishes of a nonrelative as against the wishes of his widow. By the canon law a person had a right to direct his place of sepulture. A person’s expressed wish or direction as to the disposal of his body after death is entitled to respectful consideration by the court and should be carried out as far as possible. How far the desires of a decedent as to his method of burial should prevail against those of surviving husband or wife is an open question, but as against remoter kindred such wishes, especially if strongly and recently expressed, should usually prevail.

Most States, however, do not provide for the testamentary disposition of the body of the deceased. According to the law of the Commonwealth of Massachusetts, any directive for the disposition of the human body or its parts, signed by the decedent, is not binding on the next of kin. The consignment of the body to science for anatomic dissection, post-mortem examination, or tissue transplantation can be denied by the next of kin.²⁸

While the acquisition of organs for transplantation into a recipient at first blush seems to be easily solved by passage of appropriate legislation (whereby a person may donate his body for organ transplantation) the problem is really not so easily solved. Its success would depend wholly upon the education of the public in this regard. Unfortunately, such a program would take considerable time and effort. At present, the need for organs for transplantation is becoming increasingly urgent because of recent scientific advances which are outdistancing the limitations of the law.

In jurisdictions where there is no provision for antemortem disposition of the decedent’s body, it becomes necessary to exam-

²⁶ 159 J. A. M. A. 487 (1955).

²⁷ 15 Am. Jur. 836 (1938).

²⁸ 271 New England J. Med. 691 (1964), 42 Ill. L. Rev. 393, 394 (1947); 15 Am. Jur. 838 (1938); 159 J. A. M. A. 487 (1955).

ine the common law. It is axiomatic that the care and disposition of dead bodies have such a relation to the public health that they may be regulated by law. There is no question that the legislature through its police power may exercise complete control of burials so far as is necessary for the protection of the public health and the promotion of the public safety.

In the early and barbaric times bodies were left unprotected where they died. Later the manner of disposal varied in different communities, and the bodies were buried in the ground, exposed to beasts of prey, thrown into the river or sea, or gathered up without regard to condition or sex and thrown together in a pit. But generally in modern civilized countries, both sanitary and sentimental considerations demand a more effective, decent, and orderly disposition of dead bodies. Even when death occurs on the ocean and the body must be disposed of there, its consignment to the waves, so far as is practical, is respectful and solemn. To burn a body instead of burying it is not a criminal offense, unless done to prevent an inquest. Cremation is common and its propriety seems seldom, if ever, to have been questioned. In fact the law does not seem to require any particular mode or manner of disposing of dead bodies, providing the disposition is sanitary and decent.²⁹

Common Law

In the early common law of England, there were no rights in the body of a deceased person. The rights that did exist were divided between the common law courts and the ecclesiastic courts. Blackstone, in his commentaries on the Laws of England, stated:

* * * But though the heir has a property in the monuments and escutcheons of his ancestors, yet he has none in their bodies or ashes; nor can he bring any civil action against such as indecently at least, if not impiously, violate and disturb their remains when dead and buried. The parson, indeed, who has the freehold of the soil, may bring an action of trespass against such as dig and disturb it; and if anyone in taking up a dead body steals the shroud or other apparel, it will be felony; for the property thereof remains in the executor, or whoever was at the charge of the funeral.³⁰

²⁹ 15 Am. Jur. 838 (1938).

³⁰ "It has been determined, that stealing dead bodies, though for the improvement of the science of anatomy, is an indictable offence as a misde-

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It is apparent that the ecclesiastic courts exercised jurisdiction over the affairs of the decedent involving burial. For instance, no mode of burial could be permitted which would prolong the natural decay of the body or needlessly preserve its identity. The dead, it was held, “. . . have no legal right to crowd the living, each buried generation must give way to its successor, and at that, therefore, an iron coffin, which would unduly and unlawfully prolong the period of identifying the remains, was ecclesiastically inadmissible unless an extra fee was paid to the church.”³¹

If the body lay in consecrated ground, the ecclesiastic law would interpose its protection. However, in later English cases, we find that the common law courts exercised jurisdiction over the dead body by stating that “. . . a dead body by law belongs to no one, and is, therefore, under the protection of the public.”³² The common law of England recognized the public interest in

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meanour; it being a practice contrary to common decency, and shocking to the general sentiments and feelings of mankind.

“Though a philosopher may be regardless of his own body after death, yet he must be destitute of the feelings of humanity, if he could bear without concern that the body of a beloved wife, daughter, or sister, had been exposed to public view, and mangled by the dissector’s knife.

“The principle is well described by Cicero; *de humatione unum tenendum est, contemmandan in nobis, non negligendam in nostris; ita tamen mortuorum corpora nibil sentire intelligamus. Quantum autem consuetudini famaeque dandum sit, id curent vivi.*”

See also, 3 Coke Inst. 203.

“The doctrine that a corpse is not property seems to have had its origin in the *dictum* of Lord Coke (3 Co. Inst. 203), where, in asserting the authority of the church, he says: ‘It is to be observed that in every sepulchre that hath a monument two things are to be considered, viz., the monument, and the sepulture or burial of the dead. The burial of the cadaver that is *caro data vermibus* (flesh given to worms) is *nullius in bonis*, and belongs to ecclesiastical congizance; but as to the monument action is given, as hath been said, at the common law, for the defacing thereof.’”

The old English doctrine that the executor has the right to the custody and possession of the dead until after burial does not obtain in the United States. 8 Am. & Eng. Enc. Law, 837 (1898); *Doxtator v. Chicago & W. M. R. Co.*, 120 Mich. 596, 79 N. W. 922 (1899).

³¹ 15 Am. Jur. 839 (1938).

³² *Id.*, Sec. 6, p. 831, citing:

Foster v. Dodd, 3 Q. B. 67, 77 (1867).

“The person having charge of a body cannot be considered the owner of it; he holds it only as a trust for the benefit of those who may from family relationship or friendship have an interest in it.”

Pierce v. Swan Point Cemetery, 10 R. I. 227, 14 Am. Rep. 667 (1872).

“The early common law of England recognized no property rights in the body of a deceased person, this being due, undoubtedly, to the fact that the Ecclesiastical Courts exercised jurisdiction over the affairs of the decedents.”

the disposition of the body and has, along with the courts of the United States, refused to identify any property interest per se in a dead body.

Likewise, in the English common law, the person who took charge of the body after death was not considered the owner of it but he held the body only in trust for the benefit of those who may from family relationship or friendship have an interest in it. Once the body was committed to the ground, the dead body was held to become part of the ground to which it was committed. From these basic concepts concerning the dead body, the American courts in the very early cases adopted the trust concept which later developed into the present laws concerning rights to the dead body. In the very early cases, dealing with the problem, at least one court held that there can be no property right in a dead body in the commercial sense. However, this same court held that there is a quasi-property right in dead bodies vesting in the nearest relatives of the deceased and arising out of their duty to bury their dead.³³ This right, which corresponds in extent to the duty out of which it arises, includes the right to possession and custody of the body for burial, the right to have it remain in its final resting place so that the memory of the deceased may receive the respect of the living, or to remove the body to a proper place and the right to maintain an action, and recover damages for any outrage, indignity, or injury to the body of the deceased. Likewise in the American law, the only action that can be brought for disinterring the body is an action in trespass quare clausum.³⁴ In one of the earliest American cases con-

³³ *Id.*, Sec. 6, p. 831, citing:

O'Donnell v. Slack, 123 Cal. 285, 55 P. 906, 43 L. R. A. 388 (1899); Orr v. Dayton and M. Traction Co., 178 Ind. 40, 96 N. E. 462, 48 L. R. A. (N. S.) 474 (1911);

But also,

For the very reason that no individual is permitted to have any rights in the body, courts of equity have taken jurisdiction to control the disposition of the corpse; yet, even these cases do not go on the principle of aiding the relatives, but are based on the right of burial as a right of the deceased.

Pierce v. Swan Point Cemetery, *supra* n. 32; Secor v. Secor, 18 Abb. N. C. (n. r. 1870); Thompson v. Deeds, 93 Iowa 228, 61 N.W. 842 (1895); Griffith v. Charlotte C. & A. R. Co., 23 S. C. 25, 55 Am. Rep. 1 (1884); Weld v. Walker, 130 Mass. 422, 39 Am. Rep. 465 (1881).

³⁴ Meagher v. Driscoll, 99 Mass. 281 (1868).

"While it may be true that a dead body is not property in the common commercial sense, . . . it is universally held that those who are entitled to the possession and custody for purposes of burial have legal rights to and in it which the law recognizes and will protect."

cerning the interest of the relatives in the remains of their deceased, the New York Court held “. . . that neither the corpse, nor its burial, was legally subject to ecclesiastic cognizance; that the right to bury a corpse and to preserve it remains a legal right.”³⁵

Later American cases have held that there is a *qualified property* right in the dead, giving to someone the control to insure protection of the corpse, decent burial, and continuing repose.³⁶ However, the majority of opinion and the modern view upon this question holds that there are no property rights in dead bodies.³⁷ Any action for mutilation of the dead body, for dis-

³⁵ In re Widening of Beekman St., 4 Brad. 503 (N. Y., 1857).

³⁶ Griffith v. Charlotte R. Co., *supra* n. 33.

“But can there not be a qualified property in the dead? One which gives control to someone with the view to protection, to decent interment, and to understood repose, while they are dissolving and returning to the dust from which they were created? Can it be that there is no legal guardianship of the dead? and that when the life escapes the body is left, so far as the law is concerned, without protection, even from wanton and malicious depredation, and that those to whom it was bound in life by the tenderest of ties can invoke the aid of no court in preventing its mutilation? and must they resort to violence and force for this purpose? If such be the fact, it is a reproach to our judicial system, and one which calls earnestly for legislative interposition. And yet, such seems to be the fact; at least the matter is left in great doubt, so far as our limited examination of the cases both in this country and in England, amid the press of our duties, has enabled us to ascertain.”

³⁷ Pierce v. Swan Point Cemetery, *supra* n. 32.

“That there is no property right in a dead body, using the word in its ordinary sense, may well be admitted. Yet, the burial of the dead is a subject which interests the feelings of mankind to a much greater degree than many matters of actual property. There is a duty imposed by the universal feelings of mankind to be discharged by someone towards the dead; a duty, and we may also say a right, to protect from violation; and a duty on the parts of others to abstain from violation; it may therefore be considered as a sort of quasi-property.”

Beaulieu v. Great Northern R. Co., 103 Minn. 47, 114 N.W. 353 (1907).

“The rule laid down in the Larson case (*infra*) expresses the modern view of the question, and extends a remedy where otherwise none would exist. There was no property in the dead bodies, and wronged complained of being only the invasion of an intangible legal right, no actual damages for the wrongful mutilation of the body can be recovered, and the courts award solatium for the bereavement of the next of kin as the only appropriate relief. Without the element of mental distress, the action would be imprudent of results, and of no significance or value as a remedy for the tortious violation of the legal right of possession and preservation. 7 Current Law 954. But that rule can, on principle, have no application to actions for breach of contract. The breach of contract involves only such consequences as directly result therefrom, and were within the contemplation of the parties when the contract was made, and which may be measured and determined by some definite rule or standard of compensation . . . the complaint before as charges, at most, a negligent failure to perform the con-

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interment, or other wrongs, refers only to the invasion of an intangible legal right vested in the spouse or next of kin. No actual damages for the wrongful mutilation of the body can be recovered. The courts award solatium for the bereavement of the next of kin as the only appropriate relief.³⁸

In the elaboration of the basic concept of the American courts, which state that there is no property right in a dead body, it must be emphasized that the word *property* is not used in its ordinary commercial sense. Nonetheless, there is a duty imposed by the universal feelings of mankind upon anyone toward his dead. This duty, which is also a right, is to protect his dead. It was in this sense, therefore, that the term *quasi-property* evolved.

Although, as we have said, the body is not property in the usually recognized sense of the word, yet we may consider it as sort of quasi-property, to which certain persons may have rights, as they have duties to perform toward it arising out of our common humanity. But the person having charge of it cannot be considered as owner of it in any sense whatsoever; he holds it only as a sacred trust for the benefit of all who may from family or friendship have an interest in its period.³⁹

In summary, the early English common law in fact has been overruled by the modern American courts to the extent that there is an interest in the dead body vesting in the relatives or in the next of kin which can be protected by an action at law.

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tract, for the breach of which damages for mental anguish are demanded, and the case is not brought within those wherein such damages are awarded for the malicious and wanton breach, to which we have adverted."

But also,

The right to require proper burial belongs to the public, to be exercised for the benefit of the deceased.

Larson v. Chase, 47 Minn. 307, 50 N.W. 238 (1891), may be considered as the leading case on the subject, and it has been cited as the basis for most of the later decisions. The action was for the unlawful mutilation and dissection of the body of the plaintiff's deceased husband. The only damages alleged were mental suffering and nervous shock. The court said, in overruling a demurrer to the complaint: "Whatever the act complained of constitutes a violation of some legal right of the plaintiff, which always, in contemplation of law, causes injury, he is entitled to recover all damages which are the proximate and natural consequence of the wrongful act. That mental suffering and injury to the feelings would be ordinarily, the natural and proximate result of knowledge that the remains of a deceased husband had been mutilated, is too plain to admit of argument."

³⁸ *Id.*, see:

Pierce v. Swanson Cemetery, *supra* n. 32.

³⁹ *Id.*

The dogma of the English Ecclesiastical law, that a child has no such claim (sacred and inherent right to custody of corpse in order to decently bury), no such exclusive power, no peculiar interest in the dead body of its parents, is so utterly inconsistent with every enlightened perception of personal right, so inexpressively repulsive to every proper moral sense, that its adoption would be an eternal disgrace to American jurisprudence.⁴⁰

A legal right to bury a corpse, which the courts will protect, vests in the nearest relative of the decedent so situated as to be able and willing to perform that duty.⁴¹

Burial Right

In England, the common law exercised no control over the burial of the deceased persons. The ecclesiastical courts had jurisdiction over such matters. There being no such dichotomy of the courts within American jurisdictions, they have held that this doctrine of no property interest in the body should be converted to rights of the survivors, or the next of kin, in the deceased person. This right includes the right that the body be decently interred, that the last resting place be uninterfered with, and that the body be protected.⁴²

The concept of the right of burial and the right to possession of the dead body is not original with the American courts. By the civil law of ancient Rome, the charge for the burial of the dead body rested first upon the person to whom it was delegated by the deceased. The person next in order was the scripta haeredes (legatees and devisees). In the event that the first two provisions would not apply, then the charge for the burial of the dead body rested upon the haeredities legitimi or cognati (heirs) in order.⁴³ The prevailing view in the United States is that al-

⁴⁰ *Supra*, n. 15;

In re Widening of Beekman St., *supra* n. 35.

⁴¹ *Koerber v. Patek*, 123 Wis. 453, 102 N.W. 40 (1905).

⁴² *Osteen v. Southern R. Co.*, 101 S.C. 532, 86 S.E. 30 (1915).

"... it is to be remembered that the common law of England had nothing to do with the burial of deceased persons, et cetera, but that the ecclesiastical court has jurisdiction over such matters and not the courts of common law; this court will not commit itself to such a barbarous and savage doctrine as to hold that when a person dies no one has such a property interest in the body as to see the body is decently interred, and resting place uninterfered with, and a relative or friend has a right to see that the body is protected, and these feelings in relation thereto protected."

⁴³ 15 Am. Jur. 827 (1938).

though there is no property right in the commercial sense, there are certain rights vesting in the nearest relative of the deceased. These rights arise out of the duty of the relatives to bury their dead. It includes the right to possession and custody of the body for burial, and the right to maintain an action to recover damages for any indignity or injury done to the corpse.⁴⁴

It has already been stated that a living person by testamentary device may provide for the disposition of his dead body. This right is limited to only a few jurisdictions and is statutory in origin. In the absence of testamentary disposition and in regions where testamentary disposition is not available, the surviving spouse or the next of kin has the right to the possession of the body of the deceased person for the purpose of burial or other lawful disposition.⁴⁵ Accordingly, it would seem that, *at common law, a person may not make an agreement for disposal of his body after death in such a manner as to violate the right of his spouse or relatives to bury the body.* In fact, it is now the prevailing rule in England, as well as in America, that the right to bury the dead and to preserve the remains is a right the infringement of which may be redressed by an action in damages.⁴⁶

The question often arises, "Who possesses the right to bury?" In a review of the cases involving the order of rights to

⁴⁴ 17 ALR 2d 771 (1951).

"Originally, the English common law recognized no property rights in a dead body, the reason being that the ecclesiastical court had jurisdiction over the decedent's affairs. However, the prevailing view in this country is that, although there is no property right in a commercial sense, there is a quasi-property right vesting in the nearest relative of the deceased. This right, which arose out of the duty of relatives to bury their dead, includes the right to possession and custody of the body for burial, and the right to maintain an action to recover damages for any indignity or injury done to the corpse."

"In the absence of testamentary disposition to the contrary, a surviving spouse or next of kin has the right to possession of the body of a deceased person for the purpose of burial or other lawful disposition, *Kirksey v. Jernigan*, 45 So. 2d 188, 17 ALR 2d 766 (Fla. 1950)."

"It is now the prevailing rule in England as well as in this country that the right to bury the dead and preserve the remains is a quasi right in property, the infringement of which may be redressed by an action in damages. *Spiegel v. Evergreen Cemetery Company*, 117 N.J.L. 90, 186 A. 585 (1936)."

"The law recognizes a right somewhat akin to property, arising out of the duty of the nearest relatives to bury their dead, which authorizes and requires them to take possession of the dead body for the purpose of burial." *Nichols v. Central Vermont RR.*, 94 Vt. 14, 109 A. 905 (1919).

⁴⁵ *Wood v. Butterworth*, 65 Wash. 344, 18 P. 212 (1911).

⁴⁶ *Supra*, n. 24.

burial, as a rule of thumb, the following order should be observed: 1) the decedent's wish, 2) the surviving spouse, and 3) the next of kin.⁴⁷ In the United States, burial ordinarily takes place before the appointment of a personal representative. Therefore, the duty of burial devolves upon persons in close relationship with the decedent. Most persons look forward to a proper disposition of their remains, and it is natural that they should feel anxiety concerning the subject. It has been said that a decent burial is a part of man's own rights, and the right to burial is well guarded by the law. However, the administrator of an estate may not bring any action for violation of this right. There is no doubt that a surviving spouse has the right to the disposition of the remains of the deceased spouse. And he has the sole right to bring an action for an invasion of these rights, such as an unauthorized autopsy or for mutilation of the body.⁴⁸ However, the right of the surviving spouse must be properly asserted or the right to possession of the body for the purposes of interment will be held to have been waived in favor of the next of kin.⁴⁹ As one court stated ". . . in the absence of a testamentary direction, is it not better that the husband should bury the wife, and the wife the husband, than that the door should be opened to an unseemly contest between surviving parent and the next of kin?"⁵⁰

⁴⁷ *Supra*, n. 25; also see, *Gould v. State*, 181 Misc. 887, 46 NYS 2d 313 (1944).

⁴⁸ *Foley v. Phelps*, 1 App. Div. 551, 37 N.Y.S. 471 (1896).

The weight of modern American authority, however, is probably to the effect that the primary right of custody of the body and control of burial is not in the personal representative, but in the surviving spouse or next of kin, unless the decedent left a will containing directions as to his burial, in which case the executor might derive authority from the will. *Enos vs. Snyder*, 131 Cal. 68, 63 P. 170 (1900).

This surviving spouse has the right to select the place of burial of the deceased spouse, in the absence of a testamentary disposition of the body; but the last wish of the deceased, if known, is to be considered. Once buried with the acquiescence of the surviving spouse, a removal should not be allowed except for cogent reasons; if such reasons are made to appear, however, the surviving spouse has the right of the selection of the place of reinterment, and the last known wish of the deceased is also to be considered. *Sacred Heart of Jesus Church v. Soklowski*, 159 Minn. 331, 199 N.W. 81 (1924).

⁴⁹ In the case of a dead body needing burial, the right of the spouse must be promptly asserted, or the right to possession of the body for the purposes of interment will be held to have been waived in favor of the next of kin. *Southern Life and Health Ins. Co. v. Morgan*, 21 Ala. App. 5, 105 So. 161 (1925).

⁵⁰ *Secor v. Secor*, *supra* n. 33.

In the event that the dead body is that of a child, the right of burial is vested in the parents of the child.⁵¹ There are cases, however, that hold that the father's right to possession of the dead body of his child is superior to all others including the mother of the child. In the latter instance, the court held that the mother could not maintain the suit, either alone, or jointly, regardless of how acute her suffering might be. The father had the duty to support, educate, and maintain the child, and had the right to sue for interference with the right to provide decent interment.⁵² However, in most jurisdictions, the consent of both the mother and the father is necessary for the performance of an autopsy on the body of their child.⁵³

In cases where there is no spouse or there is no surviving parent of a minor child, the right to burial devolves upon the next of kin who are present and acting.⁵⁴ Thus the children of the deceased person, or brothers and sisters of the deceased person may have the right to burial of the body.

Permission for Autopsy

An autopsy is a postmortem examination of the body of the deceased for the purpose of scientific interest in determining the cause of death and other information that may be obtained that might aid medical science. Yet an autopsy may not be performed upon every person who dies. While the old English law knew no civil action for the mutilation of the body of a dead person, such a right of action is recognized in the United States. The basis of such an action is predicated upon the right to burial of the body.

⁵¹ *Coty v. Baughman*, 50 S. D. 372, 210 N.W. 348 (1926); *Burney v. Children's Hospital*, 169 Mass. 57, 47 N.E. 401 (1897).

⁵² *Stephenson v. Duke University*, 202 N.C. 624, 163 S.E. 698 (1932).

⁵³ *Coty v. Baughman*, *supra* n. 51.

"The concern of both the father and mother is necessary to the performance of an autopsy on the body of their child where they are living together and both are within the state."

⁵⁴ Where the wife is not living with her husband at the time of his death or neglects or refuses to assume the trust incident to her right, a waiver of that right is implied and the right and duty immediately descends to the next of kin present and acting. *Southern Life and Health Ins. Co. v. Morgan*, 21 Ala. App. 5, 105 So. 161, *supra* n. 49.

The wrongful invasion of a clear right is of itself sufficient to support an action, and the law presumes damages though they may be only nominal. *Larson v. Chase*, *supra* n. 36; *Pierce v. Swan Point Cemetery*, *supra* n. 32; *Lussen v. Oshkosh Electric Light Co.*, 109 Wis. 94, 98, 85 N.W. 124 (1901); *Hacker v. Heiney*, 111 Wis. 313, 87 N.W. 249 (1901); *Luby v. Bennett*, 111 Wis. 613, 87 N.W. 804 (1901).

It is considered that the right to possession of the body for the purpose of burial is the right to possession of the body intact.⁵⁵ Therefore, with the exception of statutory provisions to the contrary, or certain other exceptions based upon contract, the person who has the right to bury, possesses the right to grant an autopsy. An autopsy or postmortem examination may be performed upon the body of a deceased person whenever the written consent thereto has been obtained.

An autopsy or postmortem examination may be performed upon the body of a deceased person whenever the written consent thereto has been obtained in any of the following ways:

- 1) by written authorization signed by the deceased during his lifetime.
- 2) by written consent of any party whom the deceased during his lifetime designated by written instrument to take charge of his body for burial.
- 3) by consent of the decedent's surviving spouse.
- 4) When surviving spouse is incompetent, unavailable, or does not claim the body for burial, or when there is no spouse, by consent of any adult child, parent, brother, or sister of the decedent. The consent of any one of such persons shall be sufficient provided that such autopsy shall not be performed under a consent given by one of such persons if, before such autopsy is performed, any of said others shall object in writing to the physician or the surgeon by whom the autopsy is to be performed.
- 5) When none of the above-named persons is available to claim the body, then the consent of any other relative or friend who assumes custody of the body for burial. Such antemortem consent or postmortem consent for an autopsy probably is effective evidence in the absence of statute.⁵⁶

Unfortunately, permission to perform autopsy does not include the removal of organs. An autopsy consent is usually for an examination in the approved and usual manner practiced by the medical profession. (See *Autopsy Consent Form—Figure 3.*) If it is necessary to remove organs for microscopic examination, and if such organs are replaced and buried with the body, then there can be no liability for going beyond the extent of the permission for autopsy!

⁵⁵ 15 Am. Jur. 847 (1938).

⁵⁶ 159 J.A.M.A. 487 (1955).

Insurance policies frequently contain provisions giving the insurance carrier the right to make an autopsy on the body of the insured in order to determine the cause of death. The propriety, necessity, and validity of these autopsy provisions have been recognized by the courts. The provision is reasonable and quite necessary in accident insurance as affording protection against frauds. However, the courts have put limitations on the exercise of the privilege by the insurer. For example, the insurer must demand an autopsy within a reasonable time after the death of the insured.⁵⁷

In many states there are statutory provisions whereby the coroner in certain instances may order an autopsy upon the body of a dead person.⁵⁸ In most instances such an autopsy may be carried out without the consent of the surviving spouse or the next of kin when the circumstances are such as to cause a reasonable suspicion that the death may have resulted from some unlawful means. The intent of such laws is to permit a coroner to use an autopsy only as a supplemental means to determine whether the cause of death was by other than natural means. In most instances this is defined as being within the discretion of the coroner. Occasionally a court may find that the evidence shows an abuse of discretion as a matter of law.⁵⁹ Where a coroner does authorize an autopsy wrongfully, he may be held liable for damages. This is in effect an invasion of the right of the body to burial. The physician performing an autopsy must be able to show that consent was received from the person en-

⁵⁷ 30 ALR 2d 838: Insurance, Time of Autopsy.

⁵⁸ Ohio Rev. Code, Sec. 313.13 (Autopsy).

⁵⁹ *Brown v. Broome County*, 8 N.Y. 2d 330, 207 N.Y.S. 2d 657, 170 N.E. 2d 666 (1960).

"Occasionally a court may find that the evidence shows an abuse of discretion as a matter of law, but such instances are rare. There are, however, many cases, and this is one, where the question of reasonableness of the grounds for directing an autopsy may not be found to be absolutely right or wrong. It falls in an area where there is a want of full proof. Then the question of reasonableness cannot be treated as a problem of law alone. When, as here, the nature of the work, the duties of the deceased, the site of the work and the scene of death disclose conditions which often accompany accidents resulting in death, there should be substantial reasons present to justify the need for an autopsy. Since the death was unwitnessed and could have been caused by the injury to the hand, an autopsy would not lead to signs of criminality or point to suicide. When these facts are considered collectively, the judgment used by the coroner cannot be found to be unassailable. In such circumstances an appraisal of the sensibleness of a decision directing an autopsy does involve a finding of the fact."

titled to possession or disposition of the body, or that he acted under proper authority of the coroner.⁶⁰

Unauthorized Autopsy

The old law knew no civil action for the mutilation of the body of a dead person. However, such a right is recognized in the United States, and is based upon the right of burial. It is now considered that the right to the possession of the body for the purpose of burial is a right to the possession of the body intact.⁶¹ It is difficult to perceive how a living person can suffer legally recognizable damages for an act of mutilation upon a corpse. Nevertheless, the nearly unanimous opinions of the courts is that a cause of action does exist for an unauthorized autopsy. The basis of recovery is found in the personal right of the deceased's next of kin to bury the body, rather than any property right in it. An autopsy is said to be an interference with this right because the act of dissecting the body prevents burial in a proper manner. In most cases, the courts apparently assumed that any cutting of the corpse, however slight, will interfere with the right to give it a proper burial, and do not discuss the problems concerning the particular degree of mutilation that results from an autopsy.⁶² The personal right to bury a body is corollary to the duty to bury, which, in the United States, falls on the person who is closest in relationship to the deceased. Consequently, the general rule is that only the person who is nearest to the deceased may recover damages for an unauthorized autopsy, regardless of how severe the injury to the other loved one might be.⁶³ Since a tort of this type rarely involves any pe-

⁶⁰ 83 ALR 2d 956 (1962); *Hirko v. Ruse*, 351 Pa. 238, 40 A. 2d 408 (1945).

⁶¹ *Supra* n. 11.

⁶² *Farly v. Carson*, 8 Ohio Dec. Repr. 119 (1880); *Medical College v. Rushing*, 1 Ga. App. 468, 57 S.E. 1083 (1907); *Louisville & N. R.R. v. Blackmon*, 3 Ga. App. 80, 59 S.E. 341 (1907).

But also the mere fact that the plaintiff suffered by the defendant's fault does not entitle him to damages; an action at law may be maintained only if the injury be actionable on some clear common-law principle.

Roberson v. Rochester Folding Box Co., 171 N.Y. 538, 64 N.E. 443 (1902); *Atkinson v. Doherty*, 121 Mich. 372, 80 N.W. 285 (1899).

⁶³ Although several different people might conceivably suffer mental anguish to some extent by a performance of an autopsy on the body of a deceased relative, the law has generally recognized that the primary right to recover is in the surviving spouse of the decedent. Since the spouse is usu-

(Continued on next page)

cuniary or physical injury, the generally recognized basis of damages is mental suffering. Since the wrong committed is, by its nature, intentional rather than negligent, the courts have also permitted punitive damages to be assessed. However, there are cases in which damages were not permitted, wherein the mutilation of the body consisted of an incision in the abdomen which was sewn up and covered with adhesive plaster.⁶⁴ Likewise, when permission is granted, an autopsy may not be performed beyond the limits of the autopsy and must be done in the usual and customary manner.⁶⁵ Generally, the degree or the extent of mutilation does not seem to be an element of the cause of action. Most courts apparently assume that any unauthorized cutting will render the body unfit for burial. However, there are cases that suggest that there can be no recovery unless some substantial mutilation is shown.

When an autopsy has been performed without proper authorization, the courts do consider this to be a mutilation of the body. There are, however, the exceptions whereby the state by virtue of the doctrine of charitable or sovereign immunity has prevented recovery for an unauthorized autopsy.⁶⁶

(Continued from preceding page)

ally accorded the right of disposition over the remains and has the authority to grant or deny permission to perform an autopsy.

U. S.-Aetna Life Insurance Com. v. Lindsay, 69 F. 2d 627 (7th Cir. 1934); Gould v. State, *supra* n. 47.

⁶⁴ Farly v. Carson, *supra* n. 62.

The plaintiff failed to prove her case alleging willful desecration and mutilation of the body of her husband where her only evidence was that a four to eight inch incision had been made on the abdomen, sewn up, and covered with adhesive plaster and there was no mutilation or dismemberment, so that the body was left fit for burial.

⁶⁵ Coty v. Baughman, *supra* n. 51.

"We think that where, as in this case, the wrongful act constituted an infringement of a legal right, mental suffering may be recovered for, if it is the direct, proximate, and natural result of, the wrongful act. The coroner having no right to perform the autopsy in this case, it was immaterial whether or not the autopsy was performed in a skillful manner."

Palenzke v. Bruning, 98 Ill. App. 644 (1900).

"... even if sufficient reason for an autopsy did exist no one had the right to hack open the body, remove the brain, liver, and spleen, and, in the presence of friends and relatives, throw the organs into a privy or water closet, since such conduct violated every instinct of propriety and was certain to outrage the feelings of the kindred of the deceased."

⁶⁶ Lane v. Knoxville, 170 Tenn. 482, 96 S.W. 2d 769 (1936); Schwabb v. Connelly, 116 Colo. 195, 179 P. 2d 667 (1947).

Damages

The usual basis of damages in an action for unauthorized autopsy is mental distress, notwithstanding the traditional reluctance of the common law to award damages for mental anguish without any accompanying physical injury.⁶⁷ However, many courts hold that where the act is characterized as willful, wanton, or malicious, or one committed with an intention to cause mental distress, damages can be recovered.

In one instance it was claimed that the removal of certain organs and part of the bony structure of the body of the plaintiff's husband, and retention of these parts caused it to be impossible to embalm the body.⁶⁸ The defendants were held liable for exceeding their authority in performing the autopsy. However, the court held that retention of portions of the body could only support a claim for nominal damages.

Under the general rule, there can be no recovery of damages for mental suffering or anguish where no physical injury is inflicted and no pecuniary loss sustained. Recovery of damages for mental distress has been denied in many actions relating to dead bodies. But as a general rule, a person who has a qualified property right in the dead body for the purpose of securing its burial is entitled to recover damages for the mental anguish caused by the willful and wanton mutilation of the body. Damages for mental anguish may be recovered for indignities inflicted upon a dead body other than the mutilation thereof, at least when they are willful and not caused by mere negligence.⁶⁹

Removal of Organs

The English common law and the case law of the United States reveals that, in general, and in the absence of statutory

⁶⁷ *Larsen v. Chase*, *supra* n. 36.

⁶⁸ *Gray v. Southern Pac. Co.*, 21 Cal. App. 2d 240, 68 P. 2d 1011 (1937).

⁶⁹ 15 Am. Jur. 827 (1938).

Mental anguish is an element of damage for mutilation or negligent handling of dead bodies. See,

42 Ill. Law R. 393-394 (1947); *Nichols v. Central Vermont R.R.*, *supra* n. 45:

"The current of authority undoubtedly supports the doctrine that, in the absence of a statute, in ordinary action for negligence there can be no recovery for mental suffering where there is no attendant physical injury. Such is the long and more recognized rule of the common law; the decisions to this effect resting upon the elementary principle that mere mental pain and anxiety are too vague for legal redress, where no injury is done to the person, property, health, or reputation."

provision, permission for the removal of organs from the dead body must be granted by the person or persons who have the right of burial. (See *Consent Form for Transplantation—Figure 4.*) The right to remove organs for the purposes of transplantation into another person, therefore, depends upon the consent for the removal of such organs by the person who possesses the right of burial. However, to be of any value, vital organs such as the kidneys and the liver must be preserved from exposure to the hypoxia. This necessitates a removal of the organs immediately after death. Otherwise, these organs would be of little, if any, value to the living recipient.

Definition of Death

There are many situations in the practice of medicine where death is known to all concerned to be inevitable. Yet, for purposes of transplantation, organs removed from these bodies immediately after death might well be suitable for transplantation.

Should the person who has the right to burial grant permission to remove the organs at death from the patient (who is dying), the question arises, "At what moment does death occur?" Death is defined in *Dorland's Illustrated Medical Dictionary*, 24th Edition, as "The apparent extinction of life, as manifested by the absence of heartbeat and respiration." A physician may rely on various tests or signs to determine whether or not death has occurred. Such tests are undertaken to prove that the heart has stopped beating, that respiration has ceased, and that circulation and responses of the vascular system to certain stimuli have been irreversibly altered. To determine whether or not death has occurred, the physician first determines whether circulation of the blood has ceased. He does this simply by placing a stethoscope over the heart and listening to the heartbeat. He also attempts to determine whether or not there is any heartbeat by feeling for the pulse which, through palpitation of the arteries also indicates whether or not the heart has stopped beating. The lack of a heartbeat may also be determined by fluoroscopic examination or by electrocardiogram, where such facilities are available.

The cessation of respiration may be determined by various methods, the oldest and the best known being that of placing a mirror before the nose and the mouth. If the mirror fogs, it

shows that respiration has not ceased. Similarly, a light article such as a feather may be placed before the nose and the mouth. The lack of movement indicates cessation of respiration.⁷⁰

It is common knowledge in medical centers that such definitions of death are obsolete. It is not possible to define death only as the cessation of respiration or of the heartbeat. These two functions may be carried on now by artificial means. For instance, the heartbeat may be stimulated by an electric pacemaker (an instrument that is in common use in the large medical centers), or the circulation may be maintained by forceful massage of the heart. Likewise, a patient need not die because he is unable to breathe. There are many instruments now available in most hospitals to ventilate the patient artificially. As an illustration, the patient who suffers a massive brain hemorrhage frequently becomes apneic (unable to breathe). Should this patient be ventilated by an automatic respirator, life will continue for a considerable length of time. The heart and circulation generally are not grossly affected by this massive "stroke." However, the destruction of the brain by the hemorrhage may not be consistent with prolonged or productive life. The question then arises, "Is this patient dead?" So long as his respirations are artificially continued and his circulation is maintained, "life" will continue. However, this patient, if abandoned, will not survive. In fact, if the artificial respirator is stopped, the heart and the circulation will also stop within a very few minutes. The patient has had irreversible destruction of brain matter and is not now salvageable. He has no hope of ever regaining consciousness. His existence depends wholly upon artificial means, and it is questionable how long such artificial means will be effective.

By contrast, consider the patient suffering from a paralytic poliomyelitis. As the result of the disease, the patient may have extreme difficulty in breathing or may not be able to breathe at all. During the great poliomyelitis epidemics of the not-too-distant past, many patients were supported by artificial respirators and many of them continue to live today by this means. Those who are living and have not regained their respiratory power would die immediately should their respirator be discontinued. Therefore, the fact that life can only be maintained by mechanical instruments is not sufficient to establish death. Like-

⁷⁰ 4 Am. Jur., Proof of Facts 4 (1960).

wise, the heart that has stopped as a result of an acute coronary occlusion or from other causes might be stimulated by artificial electric means. In this way, the heart may continue to beat or the circulation be maintained by external cardiac massage. With these illustrations, it becomes evident that death is no longer determined by the lack of respiration or the lack of a heartbeat or the lack of circulation. Death is determined by several factors but primarily by the state of unconsciousness. When the chances of recovery of consciousness have been totally eliminated, brain death has occurred.

Death is unique. It is unlike aught else in its certainty and its incidents. A corpse in some respects is the strangest thing on earth. A man who but yesterday breathed, and thought, and walked among us has passed away. Something has gone. The body is left still and cold, and is all that is visible to the mortal eye of the man we knew. . . .⁷¹

But the lack of function of the mind alone is insufficient as evidence of death. It is generally conceded that some conscious persons live on while breathing with mechanical assistance. The question then is, "When is the brain so damaged that consciousness cannot be regained?" Medicine and the law then must define the moment of death and must define it upon medical principles that have been well established. No longer is it adequate to talk about the cessation of respiration and to talk about cessation of circulation as the moment of death. It would be a most unrealistic position to require a physician to support a patient by artificial means when all chances and hope of recovery are gone. The definition of death must fit within the modern concept of life as it is defined by the physiologist. With the advent of the era of transplantation of organs, medicine and humanity can no longer afford the luxury of condemning to the grave the vital organs, which if transplanted into another person, can preserve that person's life. The law also must protect the physician by setting down the ground rules under which the science of transplantation may progress, and yet preserve unto the dying the basic rights of humanity.

Through public education, many people now in anticipation of death, request that their organs, if suitable, be taken for purposes of transplantation. Likewise, many others closely related

⁷¹ See, 16 Am. Jur. 16 (1938).

to the dying person have granted permission that the organs be taken as soon as death has occurred. The questions now are, "When must all hope be abandoned for saving the patient? When all hope is abandoned can supportive therapy be withdrawn? When all support is withdrawn, when is the moment of death?" Ultimately, the decision must rest with the patient's physician. Some authorities have recommended that an electroencephalogram be taken of the dying patient in whom irreversible changes in the brain have been thought to have occurred.

When death occurs, or in the alternative, when death has been declared inevitable, the circulation and the respiration may be maintained by artificial means. This would afford the time that the surgeon requires to transport the body of the deceased person to the operating room and under sterile conditions remove the organs required for transplantation.

Recently, physicians from the Karolinska Institute received international attention when they removed a kidney from a 40-year-old dying woman and transplanted it into the recipient. The donor had suffered a cerebral hemorrhage and was brought into the neurosurgical clinic in a comatose condition. Her condition had been pronounced hopeless. While she could not, herself, be asked to consent to the removal of the kidney, the operation was performed with her husband's approval. She died in a respirator two days after operation. Professor Craaford defended the action and the principle. He said that he and his staff had previously agreed that in cases in which irreparable damage to the central nervous system had occurred, and in which the prognosis with 100 per cent certainty be deemed hopeless, the possibility could be considered of removing a kidney for transplantation before what is currently interpreted as "death" had occurred. It was his opinion that if the physician were to wait until death, in the conventional sense, the possibility of a successful transplantation would have decreased tremendously. The position taken by the Swedish physicians is based upon a liberal interpretation of the definition of death. In their particular case, neither respiration nor circulation had ceased and the patient was not, according to the information at hand, dependent upon either of these mechanical means for support. The brain may have been irreversibly damaged, although neither respiration nor circulation had failed.

The Swedish case has been criticized from both the legal as well as moral and ethical points of view. The very thought of human experimentation brings to mind the tales of horror from Germany under the Third Reich. Therefore, it will become practically impossible to have legislatures of the various States pass legislation that will grant to a single person or to a group of persons the right to determine when death has occurred, unless and until there are more positive signs of irreversible damage. At present only when it is absolutely certain, as judged by the patient's physician and any consultants he may choose, that survival is impossible and death imminent, may permission for removal of organs for transplantation be requested. Much of this burden would be eased if, in the future, people would have the right to request by testamentary device that their organs be removed for transplantation in the event of their sudden death.

Summary

Medical science has now made it possible to transplant kidneys from one individual to another in order to save the lives of patients dying of kidney failure. The use of kidneys from recently deceased patients (so called cadaver donors) is increasing, creating special legal problems in regard to obtaining and using such organs. As techniques of heart, lung, and liver transplantation develop, these legal problems may become even more complex.

Since the time from death of donor to implantation into recipient vitally affects the success of organ transplantation, and since permission for organ donation can now come only from the family of the deceased at or near time of death, a change in existing statutes appears necessary. A living person should have the statutory right to bequeath organs of his body for purposes of transplantation. This right, to be effective, must be superior to the common law right of burial of the survivors. With the family informed and in agreement with the prospective donor's wishes in advance, sudden death of the donor would no longer create the legal emergency that now often renders successful transplantation impossible.

FIGURE 1

Live donor permit to transplant kidneys from minors. (Through the courtesy of Peter Bent Brigham Hospital, Boston, Massachusetts.)

----- HOSPITAL

**Request for Kidney Transplant Operation
in Release of All Claims**

Whereas ----- born on ----- and residing on -----, ----- has a serious kidney ailment and is in danger of losing --- life unless an operation is performed on -----: and whereas certain doctors connected with the ----- Hospital are willing to perform this operation upon the said ----- in the hope of saving the life of the said ----- and whereas the doctors who propose to perform said operations and the ----- Hospital and its staff of doctors and medical associates wish to be absolved from any and all liability, damages, law suits and causes of action as a result of the operation, now therefore in consideration of the operation to be performed and any further operations which may in the opinion of those doctors be necessary therewith, we, ----- and -----, the intended recipient of the operation and the intended donor fully realizing that the operation may be unsuccessful and may result in either losing their life or in future physical incapacity, illness or illnesses directly or indirectly caused by said operation, we nevertheless both jointly and severally on behalf of ourselves, our heirs, administrators, executors, and assigns do hereby request that said operation be performed upon ----- and hereby **RELEASE AND FOREVER DISCHARGE** the ----- Hospital, its director, and all persons on its medical or surgical staff who are in any way directly or indirectly connected with said operations or any other future operations resulting from them, for our post-operative care while in the ----- Hospital, from all damages or causes of action, either at law or in equity, which we may have or acquire or which may accrue to us, our heirs, administrators, executors or assigns as a result of these operations or medical care arising therefrom. We intend this to be a complete **RELEASE AND DISCHARGE** of all persons as well as any corporate entity having anything to do with the operations and we intend hereby to **RELEASE AND FOREVER DISCHARGE** said persons from all liability whatsoever. It is clearly understood by all parties to this instrument that no representations have been made to any of us regarding the success of the operations, and we fully understand that said operations are somewhat in the nature of an experiment and are being performed in the hope of saving the life of the said -----.

We have read all the statements contained herein and we fully realize that *we are signing a complete release and bar to any further claims which we may have resulting from these operations.*

DONOR	RECIPIENT*
PARENT	PARENT

WITNESS

DATE

*Should recipient be a minor, the signature of both parents must be obtained.

FIGURE 2
Suggested adult live donor consent form.

**Permission to Remove Kidney for Transplantation
(Adult Live Donor Form)**

Doctor ----- has explained to me that the life of ----- is endangered due to irreversible kidney disease. It has also been explained to me that a kidney can be transplanted from one person to another by surgical operation. The immediate risks to me of the operation for removal of my kidney, as well as the possible future permanent injury to my health suffered as a direct result of the removal of my kidney has been fully explained to me. I am also aware of the possibility that such kidney transplant might not be successful.

In an effort to benefit -----, I nevertheless wish and do request, authorize and direct Doctor ----- to remove one of my kidneys by means of surgical operation in order that this kidney may be transplanted into -----.

Date	Signature of Donor
------	--------------------

This is to certify that the above form was read and signed by the donor in my presence. Further, it is my opinion that ----- understands fully the contemplated procedure, its risks, and possible consequences.

Date	Witness
------	---------

FIGURE 3

Autopsy permit (through the courtesy of The Cleveland Clinic Foundation).

CLEVELAND CLINIC HOSPITAL

Cleveland, Ohio -----

I do hereby grant permission to the authorities of The Cleveland Clinic Foundation of Cleveland to perform an autopsy on the body of -----, a deceased patient, with the object of ascertaining the direct and indirect causes of death, including such examination of thorax and abdomen, brain, spinal cord, peripheral nerves, bones and marrow, neck, and organs of special senses, as may be necessary for this purpose, and to remove and retain such parts of the body as may be deemed necessary for study subsequent to the autopsy.*

Witness to signature

Signed

Relationship to patient

Address

Approved

Hospital Superintendent

*When permission for examination is limited, draw a line through each part for which permission for examination is not given.

FIGURE 4

Suggested authorization form for removal of organs from cadaver.

Authorization to Remove Kidneys for Transplantation

I hereby authorize and direct the surgeons on the staff of -----
----- Hospital to remove, by an abdominal
incision, the kidneys from the body of -----,
deceased. It is my wish that these kidneys, if suitable, be used
for purposes of transplantation, in order to attempt to preserve
life, health, and well-being.

Signature

Relationship to deceased

Address

Witnesses