

ETHICAL PROBLEMS OF ORGAN AND TISSUE TRANSPLANTATION

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Ethical problems of organ and tissue transplantation

The ethics of clinical transplantation are based on basic international bioethical principles. The most important of them are enshrined in the Convention on Human Rights and Biomedicine (Oviedo Convention, which entered into force in 1997) and its additional protocol "On Transplantation of Organs and Tissues of human Origin", as well as in the "WHO Guidelines on Transplantation of Human Organs and Tissues" adopted by the 62nd session of the World Assembly health care in March 2009. Although a certain range of ethical issues accompanied transplantation throughout the history of the development of this method of treating diseases, but it was the case of a heart transplant that caused a kind of revolution in the public consciousness, because it is the heart that a person attaches special importance, not only as an organ, but also the place where "the soul lives and feelings are born." Thus, the heart transplant of one person to another raised questions about how this operation affects a person's personality, his spiritual and mental life?

In the field of transplantology, all ethical and legal problems can be divided into several blocks related to the key stages of transplantation technology:

the first block deals with the issues of ascertaining the death of a person;


the second is the issue of the removal (sampling) of organs and/or tissues and the distribution of organs and/or tissues between recipients;

the third block is related to the problems of commercialization of transplantology.

The problem of "brain death"

Due to the fact that the overwhelming number of donors are patients diagnosed with brain death, the main ethical problem here is the establishment of such a diagnosis. First of all, this is due to the development of resuscitation, transplantation and other medical technologies. Depending on what state of the human body is recognized by the moment of his death as a person, it becomes possible to stop maintenance therapy, take measures to remove organs and tissues for their further transplantation, etc. In fact, in this clinical situation, two issues need to be addressed. The first: what is the ontological status of a human individual who has been diagnosed with brain death (is he alive or dead?). Second:





what are the criteria for the objectivity of a medical opinion when establishing such a diagnosis?

The concept of brain death was developed in neurology after the description of the state of transcendental coma by French neurologists P. Molar and M. Goulon. This concept is based on the understanding of human death as a state of irreversible destruction and/or dysfunction of critical body systems, i.e. systems that are irreplaceable (neither now nor in the future) by artificial, biological, chemical or electronic-technical systems, and such a system is only the human brain. Currently, the concept of "brain death" means the death of the entire brain, including its trunk, with irreversible unconsciousness, the cessation of independent breathing and the disappearance of all stem reflexes.

In most countries of the world, the diagnosis of brain death is the basis for a medical opinion on the onset of the moment of death of a person. Brain death is a new image and a new meaning of human death. However, the concept of brain death is not identical to the concept of biological death. Biological death is an irreversible cessation of physiological processes in cells and tissues.


In 2012, WHO developed the following definition of death: "Death occurs when there is an irreversible loss of the ability to consciousness and the loss of all functions of the brain stem. This may be the result of irreversible cessation of blood circulation and/or a consequence of catastrophic brain damage. In the context of the definition of death, "irreversible" means a loss of function that cannot be resumed spontaneously and will not be restored through intervention."

In fact, when making a clinical diagnosis of "brain death", a person (in whose body there are still manifestations of life) is recognized as already dead, accordingly, a kind of "social contract" is needed to legitimize the solution of this situation. Since the statement of the moment of death of a person based on the criterion of brain death is a complex and responsible procedure of a commission (interdisciplinary) agreement, the strictest requirements for the implementation of professional standards for establishing such a diagnosis are extremely important.

Today, the diagnosis of "brain death" is established on the basis of a number of criteria prescribed in the relevant instructions. Nevertheless, the analysis of each specific situation from the standpoint of biomedical ethics shows, first of all, the moral vulnerability of the criterion of "brain death" as human death and the need for a very responsible attitude to the execution of each paragraph of any instruction, no matter how insignificant, "bureaucratic" it may seem.

The problem of organ donation





The problem of organ donation can be viewed from different angles: depending on whether the donor is alive or dead.

If the situation of the removal of organs and tissues from a dead donor is connected, first of all, with the issue of ascertaining the death of a person, then the issue with living donors is the justification of surgical intervention. Is it moral to prolong the life of the recipient for some time at the cost of deterioration of health, conscious traumatization and shortening the life of a healthy donor? The humane goal of prolonging and saving the recipient's life loses the status of humanity when harming the life and health of the donor becomes the means of achieving it.


Professional medical ethics regarding organ transplantation is unambiguous: it is necessary to help the recipient patient, but not at the expense of the donor's health. The law prohibits organ transplantation if it is known that this operation will cause irreversible damage to the donor. The second rule explains the decision-making mechanism of the doctor: organ transplantation is permissible if the result of the operation justifies undesirable side effects. Here again, one should think about what side effects should be considered undesirable for the body?

Paradoxically, but ... in transplantology, compliance with the ethical principle of "do no harm" in cases where the donor is a living person turns out to be almost impossible. The doctor always finds himself facing a contradiction between the moral principles of "do no harm" and "do good." On the one hand, organ transplantation (for example, kidney) is saving a person's (recipient's) life, i.e. it is a boon for him. On the other hand, significant harm is caused to the health of a living donor of this organ (despite the body's ability to function even with one kidney), i.e. the principle of "do no harm" is violated, evil is inflicted. Therefore, in cases of live donation, it is always about the degree of benefit received and the degree of harm caused, and the rule always applies: the benefit received must exceed the harm caused.

Today in our country, according to the law, a living donor can be a close relative, an adult capable person who does not have diseases that are dangerous to life and health, and preferably "without bad habits", while the donor expresses his clear, informed and voluntary consent to organ sampling.

The largest number of transplants in Belarus is provided by post-mortem (cadaveric) donation (according to some data, 70% of such donors are people dying from stroke aged 50 to 60 years). This type of donation is also associated with a number of ethical, legal and religious problems, among which it is necessary to mention the problem of ascertaining the death of a person, the problem of voluntary will to donate one's own organs after death for transplantation, as well as





the permissibility of using the human body as a source of organs and tissues for transplantation from the standpoint of religion.

There are two polar positions. Liberal bioethics comprehensively supports transplantation as a promising direction in medicine. Its representatives focus on humanistic values, excluding economic benefits. The conservative Christian position boils down to the fact that causing damage to the body means a loss of respect for the living.

The time for organ harvesting from a posthumous donor is different, which is due both to the specifics of the human tissues themselves and to modern technologies for their preservation and transportation, which allow them to be kept suitable for transplantation to the patient. Each organ has its own "limit" of time. For example, heart, kidneys, liver, pancreas – 15-20 minutes, blood, plasma - 6-8 hours. Therefore, when taking donor organs from a corpse, first of all, the problem arises of determining the moment of possible organ sampling: "on a beating heart" or after establishing all the established criteria for the biological death of a person?

Although the issue of organ removal is rather legal, obtaining the consent of a person or his relatives to use his organs for transplantation is also associated with a number of ethical and psychological problems. Obtaining consent from a person who is in a terminal state is practically impossible for both ethical and medical reasons, because a person, as a rule, is physically in a state where he cannot make voluntary, responsible decisions based on complete and reliable information provided to him in an accessible form. Communication with relatives of a dying or just deceased person is also an extremely difficult and responsible ethical and psychological task, therefore, in various states there is one or another type of donation, which is legally fixed and is freely available, and with which citizens can get acquainted in advance (the most common is the presumption of consent).

Ways to obtain donor organs

The issue of organ and/or tissue removal and organ distribution among recipients is closely related to the shortage of donor organs. This problem is solved in various ways: the promotion of organ donation after the death of a person with lifetime consent to it, the creation of artificial organs, the development of methods for obtaining donor organs from animals, the cultivation of somatic stem cells followed by the production of certain types of tissues, the creation of artificial organs based on the achievements of bioelectronics and nanotechnology.

In many cases, the presence of artificial organs becomes a real salvation for patients. Currently, devices such as artificial kidney, pacemakers and artificial heart valves, bioprotheses and artificial lenses, as well as much more are actively used





in therapeutic practice. In modern practice, xenotransplantation is also one of the ways to solve organ deficiency. The idea of using animals as donors is based on the opinion that an animal is a less valuable living organism than a person. However, both animal welfare advocates and representatives of transhumanism object to this, believing that every living being has the right to life and it is inhumane to kill another for the sake of continuing the life of one living being.

A serious ethical and psychological problem is the acceptance by a person of an animal organ or an artificial organ as his own, the awareness of his organism as a whole, truly human, even after transplanting into it any organ of "non-human origin".

At the present stage of medicine, methods of cloning organs and tissues are being actively developed, which will help to remove a number of ethical and legal problems of transplantation, since the donor and the recipient are one person. However, this type of transplant is still far from being introduced into routine clinical practice.


Distribution of donor organs

The distribution of donor organs in accordance with the principle of fairness is decided by including recipients in a transplant program based on the practice of "waiting lists". "Waiting lists" are lists of patients who need a transplant of an organ with an indication of the characteristics of its health status. The problem is that a patient, even in a very serious condition, may be in the first place on this list and never wait for a life-saving operation for him. This is due to the fact that it is very difficult to choose an organ suitable for this patient from the available volume of donor organs due to immunological incompatibility. To a certain extent, this problem is being solved by improving the methods of immunosuppressive therapy, but it still remains very relevant.

The maximum provision of equal rights of patients included in the "waiting list" is carried out by following the following rules: the choice of a recipient is carried out only in accordance with medical indications that take into account the severity of the patient's condition, his immunological and genetic characteristics; the priority of donor organs should not be determined by identifying the advantages of individual groups and special funding.

What to do in a situation where two recipients are almost equally suited to the organ, and they are both in critical condition and cannot wait long? In this case, the decision is made based on the priority criterion. The doctor should also take into account the duration of the recipient's stay on the "waiting list". Preference is given to the one who "got up" in the "waiting list" earlier. In addition to these three criteria,





in accordance with the current legislation, the distance (remoteness) of the recipient from the location of the donor organ is taken into account, since the time between the removal of the organ and its transplantation is strictly limited.

The principle of transparency is of great importance in the "distribution" of organs; in Belarus, it is ensured by the creation of a register of recipients who have already undergone transplantation, as well as those who have expressed disagreement about the removal of organs (the Unified Register of Transplantation). The waiting lists remain closed, they include both citizens of Belarus and foreigners.

Many countries have introduced a moratorium on transplantation to foreign citizens in order to exclude competition for scarce organs between their own and foreign populations.

Pediatric transplantation

Organ transplantation to children is of great importance, taking into account that the therapeutic effect is incomparable with other methods of compensating for impaired organ functions and is many times superior to that in adults. When it comes to children (minors), ex vivo donation is prohibited by international ethical and legal documents. At the same time, international documents allow, as an exception, the withdrawal of regenerating tissues from such donors (i.e. capable of restoring their mass and function after partial withdrawal). The "Additional Protocol" specifies 5 requirements for this kind of practice: 1) there is no compatible donor who is able to give consent; 2) the recipient is the brother or sister of the donor; 3) donation is aimed at saving the recipient's life; 4) there is a specific written permission provided for by law, approved by the competent authority (in this paragraph, it is necessary to emphasize three important points: an appropriate legal norm is needed, parental consent is issued in writing, this whole situation has received the approval of an official body, for example, the ethics committee); 5) the potential donor does not raise objections. However, in many countries, for example, in Russia, any ex vivo transplants from a child donor are prohibited, despite international documents. From one point of view, this approach is correct, because a minor cannot assess all the risks, as well as express voluntary consent or disagreement. On the other hand, the possibilities of transplantation in such countries are significantly limited, and there is no hope for treatment for many children's patients.

The problem of commercialization



The issue of organ distribution among recipients is directly related to the problem of commercialization in transplantation. In conditions of scarcity and "opaque" waiting lists, donor organs can become an expensive commodity.

In Belarus, according to the law "On Transplantation of human Organs and tissues", transplantation from a closely related living donor and from a deceased related or unrelated donor is allowed. The transplant is carried out free of charge, only medical services for the operation itself can be paid, in particular for foreign citizens. The sale of donor organs themselves is prohibited by law and devalues the basic principles of donation as such. However, some supporters of somatic human rights advocate that "the human body is an object of property rights and in most cases has monetary value." This point of view is justly criticized, in which it is argued that such a position essentially authorizes the trade in human organs and tissues, which contradicts the norms of international law.

Despite the principle of gratuitous donation, the question of some kind of compensation to donors for the risks associated with transplantation is increasingly being raised in transplantology. As, for example, in the case of blood donation, which at the moment can be carried out on a reimbursable and gratuitous basis. Thus, the development of transplantology today is not only a medical, but also a bioethical problem that requires the development and adoption of new legislative acts, as well as adjustments to existing ones based on compliance with ethical standards.

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Nurali nishonalievich, s. . (2022). Today's generation of entrepreneurs as a subject of high social responsibility: today's generation of entrepreneurs as a subject of high social responsibility. *Central asian journal of innovations and research*, 4. Retrieved from

<http://www.sciencepublish.org/index.php/cajir/article/view/187>

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